Evaluation of information systems and monitoring arrangements for the programmes supported by the European Social Fund

FINAL REPORT

(MAIN REPORT)

VISION & VALUE
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Executive Summary

The point of departure of this project is the need to improve the monitoring of the programmes co-funded by the European Social Fund. Monitoring is defined as ‘the continuous process of examining the delivery of programme outputs to the intended beneficiaries which is carried out during the execution of a programme with the intention of immediately correcting any deviation from operational objectives’. As such, monitoring is crucial for the evaluation of ESF programmes and beyond, for reinforcing the strategic use of the ESF and Structural Funds in general.

The aim of this study is twofold: a) to identify and test a set of concepts and criteria capable of assessing the adequacy to the implementation context of monitoring systems for ESF co-financed programmes, and b) to provide guiding elements on the promotion and facilitation of monitoring arrangements during the 2007-13 programming period.

To achieve these objectives, the study starts with a brief historical overview of the ESF and its guiding principles (Chapter 2), as well as a critical review of relevant academic literature on monitoring and evaluation (Chapter 3). On this basis, we construct a framework of conceptual ideas and relationships.

Our methodology is based on two main analytical tools: 1) a conceptual framework to describe information systems and monitoring arrangements and 2) a set of performance criteria. The fundamental assumption at the core of our proposed methodology is that information systems and monitoring arrangements cannot be viewed in isolation from the institutional, social and technical contexts in which they develop. To account for these different dimensions, we first suggest a framework for analysing information systems and monitoring arrangements in the form of a matrix which we call the ‘socio-technical grid’ (Section 4.4). This matrix comprises, on one side:

- structure (extant organisational arrangements, resources and capacity),
- process (what is done, by whom and how),
- outcomes

and, on the other side:

- organisational/institutional factors,
- social / stakeholders’ perspectives (i.e. monitoring arrangement participants’ perspectives)
- technical systems functions.

This approach enables us to account for the fact that the success of monitoring arrangements does not depend only on the technologies employed or on the design of data stores and information flows, but also, crucially, on social and institutional factors. By social factors we mean the willingness of different participants in the overall programme to generate data and exchange information with one another. By institutional we meant the formal layouts that allocate decision making power to different actors and design a certain implementation process.

Decisive in this respect is the effort to clarify the concept of information agreement here identified as the key factor to enable the information flows needed to monitor the deployment of the ESF co-funded programmes (Sections 4.3). An Information agreement is conceived of as a set of explicit and tacit agreements and understandings between and among the participants in the monitoring processes that leads them to generate, share and act upon information. A working information agreement indicates a situation in which the various participants in the monitoring system are willing to generate and share their information because the expected (i.e. perceived) benefits of such behaviour outweigh the
perceived costs. Far from operating at a single level, it is argued throughout the report that the information agreement works at multiple levels (i.e. the institutional, social and the technical level) so as to enable and sustain the monitoring processes.

Alternative typologies of information agreement are suggested in Section 4.5.2 to provide a taxonomy and categorise the monitoring arrangements under review. Embedded information agreements are associated with monitoring arrangements which are formally (and effectively) embedded into the existing institutional, technical and work settings, processes and outcomes. In contrast, hosted information agreements are associated with monitoring arrangements which are partly embedded and partly separate from the extant institutional, technical and work structures, processes and/or outcomes. In addition, large “scale” (respectively small scale) information agreements occur when a large (respectively low) number of actors involved in the monitoring process decide to share the information related to the ongoing activities of the programme. Finally, we consider the “scope” of an information agreement as the degree to which the latter covers various types of information. As a summary measure, we consider the notion of “strength” to assess the overall intensity of an information agreement.

Second, in Section 4.6, our methodology addresses the quality of the monitoring system by identifying an evaluation tool which looks at four performance criteria, namely:

a) the quality of information produced (its usefulness);
b) the reliability of the system;
c) the quality of the information architecture (its flexibility);
d) the cost of monitoring system (both direct and indirect costs).

The quality of the information required by the participants in the monitoring system depends on its relevance and, therefore, usefulness. The higher the relevance, the higher the quality of the information. High quality information, in turn, is what distinguishes information from data and, therefore, what defines information in the view of the monitoring system participants. The reliability of the system, additionally, contributes to its quality and is the direct function of its coverage and the inverse function of the average size of errors and their frequency. The quality of the information architecture reveals whether the system is integrated or segmented, its flexibility, checks and recovery plans. Finally, the cost effectiveness of a monitoring arrangement should be a function of the time spent in providing and retrieving information, the real cost of technologies and the cost of mistakes. Each criterion is in turn subdivided into further sub-categories to make the assessment as objective as possible.

These methodological tools are tested in ten case studies across the enlarged European Union (Appendix 1). The field work (and the research instruments including the interview guide) was designed consistently with the terms of reference, the technical offer and the review of the research strategy that was agreed with the Commission after the first phase of the field work.

In all ten cases, our approach deliberately chooses – as for the very principle of the “information agreement” - to attempt a comprehensive picture of all the actors and of their cost – benefit perception of the monitoring systems. We generally focus either on one Ob.3 Single Programming Document or on one Operational Programme and concentrate on the relative Managing Authority as an ‘entry point’ for the analysis, reconstructing the ‘information value chain’ below and above it.

The cornerstone of the report is the study of the relationship between the strength of the information agreement and the performance of information systems and monitoring arrangements. The report elaborates on the validity of the information agreement theory by identifying the main patterns emerging from the fieldwork for each cell of the socio-technical grid (Section 5.1). It also categorises the information systems and monitoring arrangements per typology of information agreement (Section
5.2), and assesses their quality per performance criterion (Section 5.3). Finally, it tests the relationship between information agreement and performance (Section 5.4). Overall, drawing on empirical data and observations, and on the basis of a classification of the cases, the report finds that the stronger the information agreement, the better the performance of monitoring systems.

The validity of our proposed analytical model is thus empirically tested, and the potential of our framework to provide a common language describing monitoring arrangements confirmed. The adequacy of this framework to act as a descriptive tool is largely linked to its capability to identify different levels and types of information agreement as well as different configurations of technological, social, and institutional factors to which different performances appear to be associated. However, it is worth stressing that this relationship is not linear. Interestingly, there are cases where a similar performance corresponds to information agreements of different types and strengths, and others where similar degrees of agreement yield different performances. In short, as expected, there is no single solution universally adaptable to every context.

More specifically, the Call for Tender VT/2005/95 put forward four research questions whose answers can be summarized as follows: first, one needs to look at the costs and the benefits deriving from using monitoring systems and exchanging information to understand the factors that shape the interactions between and among the participants in the monitoring systems (Question 1); second, one needs to disentangle the various types of information that the monitoring systems’ participants agree to gather; one therefore needs to look at the scope of the information agreement to understand the information requirements of the participants (Question 2); third, one needs to look at the number of actors and institutional layers which partake into these information exchanges to understand the context where monitoring occurs and the types of support system architectures needed (Question 3); fourth, one needs to draw from this descriptive analysis a set of performance criteria to assess the quality of monitoring systems (Question 4).

The final chapters (six and seven) describe the main results, provide suggestions in relation to the validity of the methodology we are proposing and, more in general, discuss different approaches to monitoring systems development and give recommendations meant to improve performance.

Chapter six discusses the usability of the methodology’s concepts and criteria as tools for Member States to evaluate and improve their information systems and monitoring arrangements.

The fieldwork has – according to our research team – demonstrated the efficacy of the socio – technical approach. This methodology makes it easier to go beyond the technological domain so as to grasp some of those institutional and organisational elements that are crucial to understand why in different contexts the likelihood of an information agreement is also different.

The report elaborates on the revisions made necessary to accommodate the empirical findings and proposes further improvement to increase both the efficacy of the socio-technical grid categories as an instrument to collect information (Section 6.1) and the validity of the performance criteria in order to assess information systems and monitoring arrangements (Section 6.2). After the empirical tests, the consultants have proposed a) the streamlining of the interview guide, b) the modification of the socio-technical grid’s dimensions with a more clear cut distinction between categories of the socio technical grid, c) the refinement of the definition of Information Agreement into different types, d) the
identification of sub-categories of performance parameters so that performance can be more objectively measured.

Chapter seven concludes with a series of findings and broad suggestions for improving information systems and monitoring arrangements.

The main result is a confirmation of the basic research theory: in order for a monitoring system to work, it seems necessary that the actors supposed to provide and retrieve the most important information are involved into the development of the system and that their preferences in terms of information required and patterns through which they feed information into the systems and get information back are treated as the foundations upon which the information systems are developed and maintained. However, beyond a certain level of complexity and a given number of actors, information agreements become more difficult to achieve and the performance of information systems may decline. In this respect, it is no surprise that smaller programmes and countries tend to perform better. Likewise, more decentralized institutional contexts do not necessarily reach better results. In general, it appears that developing effective monitoring arrangements is a complex task which can be performed successfully provided complexity is reduced. The final part of the report mentions some specific actions which are useful in this respect.

As far as our suggestions are concerned, the departure point is that the diversity (of institutional and social contexts) can not be compressed. Against such a situation, the objective is not so much to aim at one single all encompassing information agreement, but more effectively, at different information agreements taking place at different levels.

It also appears necessary to clarify from the beginning the scope of the monitoring arrangement with respect both to the selection of indicators and the expectations placed on monitoring. Other means to reduce the level of complexity consist in engaging stakeholders – and more importantly the actors which provide the funded services and are close to the phenomena we want to monitor – in consultations processes: here the key is to design and provide Managing Authorities with specific instruments meant to precisely define what information other actors require and through which modes (frequency, means and modalities of communication). It is also very important that Managing Authorities device relationships with Information Systems contractors so that their requirements are clearly communicated.

Likewise, it seems appropriate to consider monitoring arrangements as evolutionary configurations, capable of adapting to changing contexts: this also has a contractual consequence with the distinction between development and maintenance of the systems to be reconsidered (in fact, with our approach systems would be – at the limit – continuously redesigned on the basis of changing needs). In particular, information systems and monitoring arrangements should be made open to non-information system based arrangements which are important levers for flexibility and experimentation: it is necessary that experimentation becomes a systematic, not stand alone component of the implementation process with, for instance, not IS codified monitoring activities becoming, if successful, part of the core systems.

As a general consequence of the aforementioned argument, it is proposed to consider the development or the improvement of an information system and monitoring arrangement as a ‘change management programme’ that goes beyond the mere IS dimension.

This has consequences for the typologies of contractors that such programmes will require, whereas in most of the analyzed cases the outside vendors are still often technology providers and system integrators.
This perspective is important for enhancing monitoring as a fully fledged component of evaluation activities, and conversely, for promoting the periodical and external assessment of monitoring arrangements.

Overall, the study presents a consolidated methodology enabling to assess the performance of information systems and monitoring arrangement. On this basis, it offers some insight as to important principles expected to facilitate the development and implementation of monitoring systems. In particular, it finds important to foster a collaborative process whereupon multiple, small-scale information agreements reflecting bilateral relationships are established at numerous levels.

Résumé Exécutif

Le point de départ de ce projet est la nécessité d’améliorer les systèmes de suivi relatifs aux programmes co-financés par le Fonds Social Européen des États Membres. L’activité de suivi est définie comme ‘le processus consistant à examiner en continu les résultats du programme enregistrés auprès des bénéficiaires, entrepris pendant l’exécution du programme dans l’intention de corriger immédiatement toute déviation par rapport aux objectifs opérationnels’. En tant que tel, le processus de suivi est crucial pour l’évaluation des programmes financés par le Fonds Social Européen (FSE), et au-delà, pour permettre une utilisation plus stratégique des Fonds Structuraux.

L’objectif de la présente étude est double: a) identifier et tester un ensemble de concepts et de critères permettant d’évaluer la congruence entre les systèmes de suivi et les contextes dans lesquels ils sont appliqués, et b) suggérer des pistes d’amélioration pour promouvoir et faciliter l’utilisation de ces systèmes de suivi lors de la période de programmation 2007-2013.

Afin d’atteindre ces objectifs, l’étude commence par un bref compte-rendu de l’historique du FSE et de ses principes de base (Chapitre 2), ainsi qu’une revue critique de la littérature existante portant sur les activités de suivi et d’évaluation (Chapitre 3).

Notre méthodologie repose sur deux principaux instruments analytiques: un cadre conceptuel utilisé pour rendre compte des systèmes d’information et modes de suivi, d’une part, et un ensemble de critères de performance, d’autre part.

L’hypothèse fondamentale au cœur de notre proposition méthodologique est que les systèmes d’information et modes de suivi ne doivent pas être considérés de façon isolée par rapport aux contextes institutionnels, sociaux et techniques dans lesquels ils sont insérés. Afin de rendre compte de ces dimensions, nous proposons en premier lieu un cadre d’analyse des systèmes d’information et modes de suivi sous la forme d’une grille dite ‘sociotechnique’ comprenant les dimensions suivantes (voir Section 4.4) :

d’une part,
- structure (arrangements organisationnels existant, ressources et capacités)
- processus (ce qui est fait, par qui et comment)
- résultat

e d’autre part,
- facteurs organisationnels et institutionnels
- facteurs ‘sociaux’ (c.-à-d. perspective des participants au système de suivi)
- fonctions techniques du système.
Cette approche nous permet de rendre compte du fait que le succès des systèmes d’information et modes de suivi ne dépend pas seulement des technologies employées ou de la façon dont est stockée l’information, ou encore de la façon dont les flux d’information sont organisés. En fait, les facteurs ‘sociaux’ et institutionnels sont tout aussi importants. En nous référant aux facteurs sociaux, nous entendons souligner l’importance de la volonté des participants prenant part à un programme co-financé par le FSE de générer des données et d’échanger de l’information avec d’autres participants. Par facteurs institutionnels, nous nous référerons à la structure formelle qui préside à la répartition du pouvoir de décision et qui détermine la mise en œuvre des mesures prises.

Décisif, de ce point de vue, est l’effort de définir ce que nous appelons un accord d’information, identifié comme le facteur clé permettant d’établir les flux d’information nécessaires au suivi des programmes co-financés par le FSE (Section 4.3). Un accord d’information est conçu comme un ensemble d’accords et de compréhensions mutuelles explicites et tacites se développant parmi les participants faisant partie d’un système d’information et mode de suivi donné, qui les incite à générer, et partager de l’information, et à agir en conséquence. Un accord d’information correspond à une situation dans laquelle les différents participants à un système de suivi sont prêts à générer de l’information et à l’échanger parce que les bénéfices attendus (c.-à-d. perçus comme tels) qui en résulteront sont supérieurs aux coûts perçus. Loin de se développer à un niveau seulement, il est démontré dans le rapport, comment des accords d’information peuvent se déployer à différents niveaux (c.-à-d. à des niveaux institutionnels, sociaux et/ou techniques différents), permettant ainsi de soutenir le processus de suivi.

Une typologie d’accords d’information possibles est proposée de façon à caractériser les systèmes d’information et modes de suivi examinés dans l’étude (Section 4.5.2). Un accord d’information ‘encastré’ est associé à des pratiques de suivi qui sont ancrées formellement (et de façon effective) dans les structures et processus institutionnels, techniques et sociaux. Par opposition, un accord d’information ‘hébergé’ correspond à un cas de figure où les procédures de suivi sont en partie ancrées et en partie séparées des structures et processus institutionnels, techniques et sociaux (pré-)existants. De plus, un accord d’information de ‘large échelle’ (respectivement de ‘petite échelle’) est vérifié lorsque un grand (resp. faible) nombre d’acteurs impliqués dans le processus de suivi est disposé à partager l’information disponible. Enfin, nous considérons l’‘envergure’ d’un accord d’information, liée au degré selon lequel l’accord d’information couvre différents types d’information. En synthèse, nous utilisons la notion de ‘force’ d’un accord d’information permettant d’en apprécier l’intensité globale.

En second lieu, notre méthodologie aborde la question de la qualité des systèmes d’information et modes de suivi et identifie un instrument d’évaluation fondé sur quatre critères de performance (Section 4.6) :

- a) la qualité de l’information produite (son utilité)
- b) la fiabilité du système
- c) la qualité de l’architecture sous tendant les systèmes d’information et modes de suivi (sa flexibilité)
- d) le coût du système d’information et mode de suivi (en considérant à la fois les coûts directs et indirects)

La qualité de l’information requise par les participants au système d’information et mode de suivi dépend de sa pertinence et de son utilité. Une information de haute qualité est ce qui distingue l’information des données; c’est donc ce qui représente aux yeux des participants l’information à prendre en compte. La fiabilité du système de suivi est fonction directe de la couverture des données et fonction inverse des erreurs moyennes et de leur fréquence. La qualité de l’architecture du système révèle si le système est intégré ou bien segmenté, et s’il est flexible. Enfin, l’efficience-coût d’un
système d’information et mode de suivi est fonction du temps et de l’effort nécessaires pour insérer et extraire les données, du coût réel des technologies et du coût des erreurs. Chaque critère est à son tour décomposé en plusieurs ‘sous-critères’ de façon à rendre l’évaluation aussi objective que possible.

Ces instruments méthodologiques sont testés dans le cadre d’études de cas menées dans dix pays de l’Union Européenne (Appendice 1). Le travail de terrain (dont les méthodes d’investigation comme le guide d’entretien) a été développé en conformité avec les Termes de Références, l’Offre Technique et la stratégie de recherche définie en accord avec la Commission au terme de la première étape méthodologique prévue par le Projet.

Dans chacun des cas, notre étude choisit délibérément, en conformité avec le principe d’accord d’information, de brosser un large panorama des différents acteurs qui participent au système d’information et mode de suivi et de leur perception du rapport coût-bénéfice associé au fonctionnement du système. Nous nous concentrons généralement sur le cas d’un Document de Programmation Unique Ob.3 ou d’un Programme Opérationnel et sur l’Autorité de Gestion en charge comme ‘point d’entrée’ de l’analyse, et nous reconstruisons la ‘chaîne de valeur de l’information’ qui prend place autour de l’AdG.

L’argument central du rapport concerne la relation entre la force ou l’intensité de l’accord d’information et la performance des systèmes d’information et modes de suivi. Le rapport analyse la validité de la théorie de l’accord d’information d’une part en identifiant les principales caractéristiques qui émergent des études de cas pour chacune des cellules qui composent la grille sociotechnique (Section 5.1), en caractérisant les différents types d’accord d’information à l’œuvre dans les cas étudiés (Section 5.2) et enfin d’autre part, en évaluant les systèmes de suivi selon les quatre critères de performance (Section 5.3). Cela permet de tester la relation éventuelle qui existe entre l’accord d’information (son intensité) et la performance du système observé (Section 5.4). En général, sur la base des observations empiriques et de leur classification, il apparaît que plus l’accord d’information est intense, plus la performance du système est élevée.

La validité de notre modèle analytique est ainsi vérifiée empiriquement. De même, le potentiel de notre cadre d’analyse afin de permettre un langage commun pour rendre compte de la très grande variété des systèmes d’information et modes de suivi à l’œuvre dans l’UE est confirmé. La pertinence de ce cadre d’analyse en tant qu’instrument descriptif est largement liée à sa capacité d’identifier différents types d’accord d’information à l’œuvre à différents niveaux, ainsi que différentes configurations de facteurs techniques, sociaux et institutionnels auxquelles différents niveaux de performance semblent être associés. Cela dit, il est important de souligner que cette relation n’est pas linéaire. En effet, il est des cas où des performances semblables correspondent à des accords d’information de différents types et de différente intensité et d’autres cas où les mêmes types d’accord d’information conduisent à différents niveaux de performance. En bref, et conformément à nos attentes, il n’y a pas de solution universelle qui s’imposerait dans tous les cas.

Ces développements nous permettent de répondre spécifiquement aux quatre questions de recherche énoncées par les Termes de Références VT/2005/95. Ces réponses peuvent être synthétiquement restituées de la façon suivante: tout d’abord, de façon à comprendre quels sont les facteurs qui déterminent les interactions prenant place entre les participants d’un système de suivi, il est nécessaire d’identifier les coûts et les bénéfices résultant de l’utilisation du système de suivi et de l’échange d’information perçus par les participants (Question 1); ensuite, il faut déterminer les différents types d’information que les participants d’un système de suivi acceptent de collecter et donc évaluer l’‘envergure’ de l’accord d’information de façon à comprendre les exigences des participants en matière
d’information (Question 2); troisièmement, il faut considérer le nombre des acteurs, et des niveaux institutionnels concernés par les échanges d’information pour appréhender le contexte dans lequel l’activité de suivi se déroule et déterminer le type d’architecture de système souhaitable (Question 3); quatrièmement, il est recommandé de déduire d’une telle analyse descriptive un ensemble de critères de performance pour évaluer la qualité des systèmes de suivi (Question 4).

Les derniers chapitres (six et sept) rendent compte des principaux résultats, et proposent des suggestions relatives à l’utilisation de la méthodologie proposée. De façon générale, différentes approches possibles concernant le développement d’un système de suivi sont discutées et quelques recommandations proposées susceptibles d’améliorer la performance des systèmes de suivi.

Le chapitre six discute l’utilité de notre méthodologie en tant qu’instrument destiné aux Etats Membres pour évaluer et améliorer leur propre système d’information et mode de suivi. Les études de cas ont démontré l’efficacité de l’approche sociotechnique. Cette méthodologie permet d’aller au-delà du domaine strictement technique et d’identifier les éléments institutionnels et organisationnels cruciaux qui expliquent pourquoi et comment des accords d’information différents dépendent de contextes différents.

Les révisions qui ont été nécessaires pour rendre compte du matériel empirique récolté sont évoquées dans l’objectif d’améliorer notre méthodologie. Nous proposons ainsi des pistes d’amélioration pour augmenter l’efficacité à la fois de la grille sociotechnique en tant qu’instrument d’analyse (Section 6.1), et des critères de performance en tant qu’instrument d’évaluation (Section 6.2). Après ces tests empiriques, nous présentons a) un guide d’entretien rationalisé b) la modification des dimensions de la grille sociotechnique permettant une meilleure distinction entre les différentes catégories, c) l’affinement de la définition d’un accord d’information avec la détermination de trois catégories distinctes, d) l’identification de sous catégories de paramètres de performance de façon à mesurer de façon plus objectives la performance.

Le chapitre sept conclut sur une série de résultats et de suggestions générales susceptibles d’améliorer les systèmes d’information et modes de suivi.

Le principal résultat est une confirmation de la théorie à la base de notre recherche. Pour qu’un système de suivi fonctionne, il semble nécessaire que les acteurs en charge de fournir, introduire et extraire les données soient consultés lors du développement du système et que leurs préférences en termes d’information requise, de modalité d’insertion et d’extraction soient non seulement prises en compte mais forment aussi la base même sur laquelle se développe et est entretenue le système. Cela dit, au-delà d’un certain niveau de complexité et d’un certain nombre d’acteurs, un accord d’information est de plus en plus difficile à rejoindre et la performance du système risque de décroître. Un résultat sans surprise est que les programmes les plus restreints et les pays de plus petite taille obtiennent de meilleurs résultats. Inversement, les environnements les plus décentralisés ne sont pas nécessairement mieux lotis. En général, il est clair que le développement d’un système de suivi efficace est une tâche complexe et qu’il est nécessaire de réduire cette complexité pour obtenir de meilleures performances. Quelques moyens pour réduire la complexité sont évoqués dans la partie finale du rapport.

En ce qui concerne nos suggestions, notre point de départ est que la diversité (des contextes socio institutionnels) est incompressible. L’objectif n’est alors peut être pas tant de viser un unique accord d’information, mais plutôt de promouvoir différents accords d’information à différents niveaux.
Il apparaît également nécessaire de clarifier dès le départ l’étendue du système d’information et mode de suivi en ce qui concerne la sélection des indicateurs et les attentes placées sur le système. D’autres moyens pour réduire le niveau de complexité consistent à engager des procédures de consultations des parties impliquées dans le processus de suivi, en particulier des acteurs responsables de la distribution des fonds qui sont proches du phénomène que l’on souhaite observer. De ce point de vue, la clé est de mettre en place des instruments à disposition des Autorités de Gestion qui permettent d’identifier aussi précisément que possible les besoins d’information des acteurs impliqués, et les modalités selon lesquelles ceux-ci s’attendent à disposer de l’information requise (périodicité, modalité de transmission, etc.). Il est aussi très important que les Autorités de Gestion envisagent des relations avec les sous traitants en charge d’élaborer les systèmes d’information permettant de communiquer ces exigences.

De même, il semble souhaitable de considérer les systèmes de suivi en tant que configurations susceptibles d’évoluer et de s’adapter à des contextes en mutation. Cela aussi a une conséquence de nature contractuelle impliquant la distinction entre le développement et la maintenance d’un système d’information (en fait, dans le cadre de notre approche, les systèmes de suivi devraient – à la limite – être continuellement ajustés sur la bases des nouveaux besoins). En particulier, les systèmes d’information et modes de suivi devraient être ouverts à l’information produite par des arrangements informels, ne résultant pas nécessairement de systèmes d’information, qui sont pourtant source de flexibilité et occasions d’expérimentation. Il est souhaitable que l’expérimentation devienne une composante systémique du processus visant à établir un système de suivi, et que les arrangements informels intègrent le cœur des systèmes de suivi.

En conséquence des arguments ci-dessus, il est proposé de considérer le développement ou l’amélioration des systèmes d’information et modes de suivi en tant que ‘programme de gestion du changement’ allant au-delà de la considération des aspects techniques. Cela entraîne des conséquences quant à la typologie des sous-traitants sélectionnés, en contraste avec la pratique relevée dans la plupart des cas examinés selon laquelle les consultants externes sont souvent des fournisseurs de technologie et des intégrateurs de systèmes.

Cette perspective est importante pour permettre au processus de suivi de devenir part intégrante des activités d’évaluation, et inversement, pour soumettre les systèmes de suivi à de véritables exercices d’évaluation.

En fin de compte, cette étude propose une méthodologie consolidée permettant d’évaluer la performance d’un système de suivi. Sur cette base, notre étude met en lumières un certain nombre de principes simples dont on s’attende à ce qu’ils facilitent le développement et la mise en œuvre de systèmes de suivi. En particulier, le rapport suggère qu’il est important de promouvoir un processus collaboratif grâce auquel de multiples accords d’information plus restreints, reflétant des relations bilatérales sont établis à différents niveaux.
1. Introduction

As stated in the technical specification of the European Commission’s Tender, the monitoring capabilities of the Member States and the institutions implementing their programmes will be crucial to the success of the next programming period of European Social Fund expenditures. More decentralisation and the need to improve performance and effectiveness within a context in which funds are being augmented across an enlarged European Union makes possessing appropriate monitoring arrangements a key requirement to ensure effective and efficient delivery of ESF activities. Understanding how activities are undertaken and resources are used will help the various actors to focus their efforts on increasing performance, and this can only be achieved through appropriate and well implemented monitoring arrangements.

As the tender specifications indicate, the success of these monitoring arrangements does not depend only on the technologies employed or on the design of data stores and information flows. Social factors also play a crucial role in successful monitoring systems.

By social factors we mean the willingness of different participants in the overall programme to generate data and exchange information with one another. The fundamental impetus for this process is the perceived cost–benefit balance that each participant is confronted with when deciding whether to adopt a collaborative approach to monitoring. Notwithstanding any attempts to impose obligations to participate in monitoring activities on participants, we see purposeful and self-motivated collaboration as essential, and still a largely voluntary choice. Put another way, people can to a degree resist monitoring requirements, but might be encouraged to engage with them if they perceive them as beneficial to themselves, their institution, and more broadly to the overall aims of the ESF programmes. More specifically, information systems that embody the technical or formal element of monitoring can only flourish if everybody, or at least a large share of participants in the system, believes it is of positive value to share and use the information generated.

In the remainder of this report we shall label this phenomenon as an information agreement. A working information agreement indicates a situation in which the various participants in the monitoring system are willing to generate and share their information because the expected (i.e. perceived) benefits of such behaviour outweigh the perceived costs. Of course, in a system as extensive as the ESF we should not imagine that there will be a single information agreement that encompasses all participants. Rather, we see multiple information agreements operating (to varying degrees) at all the inter-organisational linkages of the monitoring system from the provider of services, through the National structures to the Commission itself.

Our fieldwork has confirmed this basic approach, but also demonstrated that the collaborative and information agreement concepts are still very far from being commonly accepted. All countries studied seem to prefer a ‘top down’ approach to establishing monitoring systems and as a result in nearly all circumstances the monitoring channels achieve only a fraction of the potential they may be capable of in terms of information generation, distribution and use. Given that monitoring is intended to be a process that has significant operational consequences, defined as: ‘the continuous process of examining the delivery of programme outputs to the intended beneficiaries […] carried out during the execution of a programme with the intention of immediately correcting any deviation from operational objectives’, we submit that ongoing monitoring activities may well undermine such top-down structures.

1 Cf. the Open Call for Tender n. VT/2005/95 (p. 6).
The fieldwork has also contributed to further clarifying the role of the methodological framework in evaluating information systems and monitoring arrangements. We see, through these studies, that different actors in the socio-technical contexts examined have different interpretations of what monitoring should be. For some the goal is to control and audit the implementation and running of the programmes, for others monitoring is there to support resource allocation decisions. We see that monitoring is less frequently linked directly to achievement of overall programme goals. For many actors monitoring is associated with controlling and auditing and pertains essentially to the financial flows; for a minority, controlling and auditing are interpreted in a wider frame of reference and pertain to the capability of projects and the programmes to achieve their deliverables. These different interpretations co-exist within the same organisation and the same monitoring system.

Given this situation, we maintain that the development of more effective monitoring capabilities can be initiated and seen through by recognising these complex structures and motivations and reflecting them in the promotion of new collaborative structures. Our research framework becomes then not only an instrument to describe the complex reality by articulating relevant factors into different ‘boxes’, but also serves as a tool to identify strategic areas for initiating such a collaborative process, and for anticipating the inevitable tensions that will arise and which need to be managed.

The remainder of this report is structured as follows:

- Chapter two recalls the historical background of the European Social Fund and reviews the reasons why monitoring systems should be considered even more central than in the past for programme management;

- Chapter three reviews the literature on evaluation drawn from information systems (IS) to show the alternative theoretical and disciplinary approaches possible in addressing the evaluation questions of this project;

- Chapter four depicts our theoretical framework by distinguishing between our descriptive and our evaluation tool. It introduces our conceptualisation of monitoring, our socio-technical grid, our conceptual linkage between our theoretical framework and our project activities, as well as the typologies of information agreement we have identified and our four performance areas which stand for our evaluation tool. It also reviews the methodology and activity plan on the basis of the results of the first phase of the fieldwork;

- Chapter five elaborates on the validity of the information agreement theory. It shows the main patterns emerging from the fieldwork for each cell of the socio-technical grid. It also categorises the information systems and monitoring arrangements per typology of information agreement, it assesses their quality per performance criterion and, finally, it tests the relationship between information agreement and performance;

- Chapter six discusses the usability of the methodology’s concepts and criteria as a tool for the various Member States to evaluate information systems/monitoring arrangements and improve them. It shows the efficacy of the socio-technical grid categories as an instrument to collect information, the validity of the performance criteria to evaluate information systems/monitoring arrangements and our overall approach in regards to the information agreement dimensions;

- Chapter seven makes some suggestions for improving monitoring arrangements across European Member States;
The appendixes contain the fieldwork report per case, references, a revised version of the interview guides, as well as a glossary, a list of acronyms, the overall work plan and resources and, finally, the validation report.
2. Historical overview of the ESF

The European Social Fund (ESF) is the main financial tool through which the European Union (EU) puts into action its strategic labour market, human resource development and social inclusion policy aims. The ESF is one of the four EU Structural Funds which have been set up to promote economic and social cohesion across Europe. The remaining three Funds are: the European Regional Development Fund (ERDF), the Financial Instrument of Fisheries Guidance (FIFG) and the European Agricultural Guidance and Guarantee Fund (EAGGF)².

The ESF aims to promote a high level of employment, equality between men and women, sustainable development and economic and social cohesion. The primary aim of the ESF is to provide support for implementing the National Action Plans (NAPs) for employment which outline how the employment guidelines set out by all EU governments will be applied within every Member State. Each Member State has to submit an annual NAP to the EU Commission. The EU Commission and the EU employment and social affairs’ ministers examine each of the NAPs. Their comments are then drawn up in a Joint Employment Report which is presented to the European Council for approval.

The ESF allocates European funds towards the realisation of the goals agreed in the European Employment Strategy (EES), the main European tool used to ensure coordination of the employment policy priorities to which EU Member States subscribe. The EES was initiated at the Luxembourg European Council of November 1997 on the basis of the new provisions of the Amsterdam Treaty. Though EES was initiated prior to the Lisbon Council, it is nevertheless a key component of the Lisbon strategy.

At the Lisbon European Council (March 2000), the European Union set for itself a new strategic goal for the next decade: to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with both a qualitative and quantitative increase in jobs combined with increased social cohesion. The strategy was designed to enable the European Union to regain the conditions for full employment and to strengthen cohesion by 2010. The Council also considered that the overall aim of these measures should be to raise the EU employment rate to 70% and to increase the number of women in employment to more than 60% by 2010.

The ESF channels its resources into strategic, long-term programmes in Member States and regions where economic development is less advanced. Programmes (7 years in length) are planned by Member States together with the European Commission and then implemented through a wide range of organisations in the public and private sector. These organisations include National, Regional and local authorities, educational and training institutions, voluntary organisations and the Social Partners i.e. trade unions and work councils, industry and professional associations, and individual companies. The European Commission itself does not select or directly fund projects it is rather the Member States who are responsible for the identification of priorities for funding and for the selection of individual projects. The ESF has supported over 200 strategic long-term programmes for the period 2000-2006.

The ESF has undergone many changes since its establishment due to the evolution of the social and economic situation, the changing nature of the EU and the progressive enlargement of the EU. Set up by the Treaty of Rome in 1957, the ESF originally had a role that gravitated around redistributing funds to less prosperous countries such as Italy which were expected to be the major beneficiaries despite

² It is worth stressing that FIFG (now called the European Fisheries Fund - EFF) and EAGGF (now called the European Agricultural Fund for Rural Development - EAFRD) are no longer Structural Funds in the 2007-2013 programming period.
contributing relatively less. However, it turned out that from 1967 onwards the most prosperous Member State (i.e. Germany) became the major beneficiary. Thus, twelve years after the onset of the ESF programme, during the first ESF review, it was noted that the programme’s failure to effectively redistribute resources was one of the major drawbacks of the ESF.

By the mid-sixties it became clear that the European labour market had been failing to meet its goals. Part of the unemployment problem was attributable to the impact of community policy, particularly in the economic field. It was, therefore, decided to strengthen the ESF so that it might become an instrument responding more efficiently to Community wide rather than purely national objectives. Accordingly, the new ESF structure became a compromise between interventions aimed at specific categories of workers and interventions focusing on structural unemployment in the less developed regions. A further innovation was the opening up of ESF aid to the private sector.

Due to serious deterioration in the unemployment situation, especially for young people and in the least developed regions, there were new ESF amendments in the mid-seventies. Apart from the establishment of the European Regional Development Fund (ERDF) in 1975, a higher grant rate of 55% was given to the absolute priority regions (i.e. Greenland, the French Overseas Areas, Ireland, Northern Ireland and the Italian Mezzogiorno). The ESF, therefore, increasingly became a support for Regional development with its focus on what are known today as Objective 1 regions.

The Structural Funds underwent a radical reform in 1988 which transformed their way of working. The Structural Funds went from being isolated to becoming highly integrated so as to work together towards the goal of economic and social cohesion. Four basic principles were introduced, namely a) concentration; b) partnership; c) programming; d) additionality.

**Concentration**: this principle is labelled concentration to emphasise the need for concentrating funding in the least developed regions. Five objectives were set out to be achieved by the Funds in specific combinations. Two of these objectives, combating long-term unemployment (Objective 3) and ensuring a start for young people in the working world (Objective 4) applied across the overall EU and solely involved the ESF. The reform also enhanced the traditional ESF role of support for the development of the less prosperous regions with a sharp focus of resources on the least developed regions.

**Partnership and programming**: The reform also required that each Member State submitted its plans by outlining National and Regional strategies in relation to the aims of the new Objectives. On this basis, the Commission departments dealing with the various Structural Funds and the National/Regional authorities in the Member States discussed in partnership the submission of plans. This process resulted in the Community Support Frameworks (CSFs) setting out the priorities for Structural Fund assistance with indicative allocations from each Fund over the entire programming period 1989-1993. Separate Operational Programmes (OPs) and Global Grant schemes were subsequently set out for each field of activity to clarify the way the Funds were to be used in a more detailed manner.

**Additionality**: this principle required and still requires that the Structural Funds should complement not replace National funds.

In 1993, six new regulations were adopted though the major principles introduced in 1988 did not change. Nevertheless, the new regulations introduced some important modifications to priority objectives. While there was no change to the definition of Objectives 1 and 2, the new Objective 3
combined the former Objective 3 and 4 (combating long-term unemployment and integration of young people) and also included the aim of ‘facilitating the integration of those threatened with exclusion from the labour market’. The new Objective 4 was laid out ‘to facilitate workers’ adaptation to industrial changes and to changes in production systems’. In order to speed up and simplify the programming phase, Member States have had the option since 1993 of presenting a Single Programming Document (SPD) per Objective. SPDs combine the contents of a CSF and an OP in order to set out the strategy, priorities, objectives and expected impact of Structural Fund activities. They also outline how the programmes would be managed, monitored and evaluated on the ground.

Subsequently, to reduce the level of bureaucracy and administration (Leonardi and Ciaffi 2001), the six objectives of the 1994-1999 programming period were compressed into just 3 objectives. Objective 1 promotes the development of regions whose GDP per capita is below 75% of the EU average (e.g. Portugal, Greece, some regions of Italy and Spain, Ireland), as well as the outlying regions (e.g. the French Overseas Departments, Azores, Madeira) and the sparsely populated regions of Northern Sweden and Finland. Objective 2 provides support for areas adjusting to change in the industrial and service sector, the urban areas in decline and the urban areas in difficulty. Finally, Objective 3 provides funding to help adapt and modernise policies and systems of education, training, and employment. It is expected that in the future the ESF will provide support under two new objectives ‘Convergence’ concerning the least developed regions and ‘Regional Competitiveness and Employment’ regarding the rest of the territory of the Union.

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Although the above description gives a very simplified historical overview of the ESF, it does paint the principles (i.e. concentration, partnership, programming and additionality) whereupon the main architecture of the Structural Funds is based. There are also studies regarding the actual implementation of the Structural Funds. Lang (2003), for instance, has conducted a detailed study of the Structural Funds implementation in Germany, Ireland and Sweden to see to what extent effective implementation is at the discretion of Member State actors. It is well known that the EU and its Member States have become interpenetrated and it is no longer possible to distinguish simply EU policies from state policies. Indeed in the field of Structural Funds, there are two policy instruments that co-exist, namely the ESF and domestic instruments. Although they might seem separate, these two instruments are closely interconnected considering that they normally have the same general objectives, address the same target groups, involve the same implementation agencies and, in some Member States, they are so tightly-coupled that they mesh budgets, as well as procedures.

Whenever there are changes to the Structural Funds, the Member States have two options at their disposal: absorption that is absorbing the change provided that there is a functional equivalent in the domestic policy, or isolated implementation, in case there is a mismatch between the Structural Funds policy model and the domestic policy. Isolated implementation, in turn, may result in symbolic or material change according to whether the implementation consists of a ritualised parallel structure or a real change in domestic policy (Lang 2003). Since the beginning of 2000, new regulations have been enacted whereby the Commission’s competencies are focused on the strategic issues while the Member States have more responsibility and more flexibility in implementing the programmes at the local level.

Structural Funds now have four distinguishing traits that are directly relevant to our study of monitoring, namely: a) Programme formulation; b) Evaluation and Monitoring; c) Involvement of sub-national state actors and d) Involvement of non-state actors.
Programming is the core element of the Structural Funds’ policy model whereby, based on a thorough analysis of the socio-economic situation, development objectives and associated strategy are formulated.

Evaluation and Monitoring refer to the systematic assessment of a programme, its implementation and/or the quantification/qualification of its socio-economic effects. It is in this vein that, for instance, the EU has called for the harmonisation of statistical indicators, both economic and social, to support the development of European economies and the redistribution between the regions. This process, in turn, has created the necessity to accept a view of statistics that has led to the institutionalisation of indicators which do not claim to directly describe reality, but give some indication of it (Desrosieres 1995). Indicators, in other words, proceed selectively by objectifying facets of things, states and processes provided that one agrees that there are in fact ‘real’ things which can be quantified.

Involvement of sub-national state actors, stipulates that these actors have to be consulted in the programming process. Involvement of non-state actors concerns the distribution of competencies and power in the implementation system. Strikingly, Lang (2003) describes in his study only one full case of absorption, within Germany, referring to the new requirement to involve sub-national state actors in Regional policy. Here this new requirement meets a functional equivalent in domestic policy. Half of the other cases analysed reflect a symbolic change, while the remainder are exemplifications of material change. Thus, one might conclude that the implementation of EU policies (including monitoring) happens in an isolated fashion where, paradoxically, if one traces the order of events, domestic changes arise independently from the Structural Funds and are central to their effective implementation. It is as though the decentralised actors are firstly embedded in their domestic contexts and only to a much lesser extent are they entwined with the EC Structural Funds’ institutional context.

Lang’s (2003) analysis warrants two conclusions: first, the implementation of Structural Funds regulations (including monitoring) lies at the discretion of Member State actors; second, there is a limited capacity of EC decision makers to control structural policy implementation by defining EC regulations despite the high degree of interpenetration between EC and Member States.

Against this background in the next programming period the regulations move the focus to employment and growth and jobs. They also provide for a number of simplifications and further delegation of authority towards the regions. Such an initiative does indeed require more focused and efficient self-monitoring capabilities on the part of Member States. Our research has been developed in an effort to facilitate this initiative.

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3 The notion of reality is a thorny one that has troubled philosophers’ minds for a long time. Whereas foundationalists believe that there is an objective reality ‘out there’ which can be measured and evaluated, anti-foundationalists believe that reality is simply a negotiated invention especially in relation to institutional facts which are ontologically subjective because they only exist in people’s minds. We find Desrosieres’ (1995) title ‘Reflecting or instituting (reality) – the invention of statistical indicators’ very telling in this regard because it shows these conflicting views on truth and reality.

3. Literature review

In this chapter, we assess alternative theoretical and disciplinary approaches that one could apply to the evaluation activity in this project. We also review the literature on information systems (IS) for the management of public interventions. The historical overview of the European Social Fund (ESF) provided in the previous chapter provides the backdrop upon which our intellectual effort needs to be cast.

3.1 Assessment of alternative approaches to the evaluation questions

Our main task as evaluators and policy advisers is to review the monitoring systems of ESF co-financed interventions during the programming period 2000-2006 so as to identify and test a set of concepts and criteria to assess the adequacy of monitoring systems to their implementation context. These concepts and criteria should be able to provide elements of guidance about the promotion and facilitation of monitoring arrangements during the next programming period (2007-2013).

Although the evaluation of monitoring systems has so far moved along a highly-technical path concentrating on technology and indicators, the Open Call for Tender n. VT/2005/95 clearly identifies a need to better understand their functioning as social systems generating and transmitting relevant information to their various participants. Indeed the traditional approach to evaluation is premised on the assumption that there is an objective reality ‘out there’. Evaluation, therefore, becomes a simple exercise of measurement where the monitoring system investment’s performance needs to match pre-defined indicators. Yet this is a very narrow approach to evaluation which neglects the social side of monitoring systems. Not only do indicators barely ‘indicate’ rather than describe reality; we believe that the quality of information generation and sharing, and the associated costs and benefits for participants, are crucial variables to assess and evaluate the quality of monitoring systems.

Following Smithson and Hirschheim (1998), we attempt here to substantiate this claim by providing a broad review of the IS evaluation literature in which we classify the literature into a continuum from highly rational/objective paradigms to subjective/political perspectives. These approaches may be interpreted as distinct ways of addressing the question of evaluation, or alternatively as indicating a range of perspectives an evaluation might attempt to encompass.

3.2 The rational/objective paradigm

The rational/objective paradigm is characterised by fairly rational assumptions regarding the nature of evaluation of information systems. It sees evaluation as an external judgment of an IS that is treated as if it existed in isolation from its human and organisational components and effects. It does not take into account the fact that evaluation is a socially-embedded process in which formal procedures entwine with informal assessments by which actors make sense of their situations. It also places excessive

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5 Cf. the Open Call for Tender n. VT/2005/95 (p. 5).
emphasis on the technological and accounting/financial aspects at the expense of the organisational and social aspects. In so doing, it neglects the organisational context and process of IS development and its content, elements that are critical to the successful application of information technology (IT) in support of the business. The key idea of the rational/objective paradigm is to evaluate performance or quality compared to fairly detailed low-level specifications or benchmarks.

Rational/objective assumptions are grounded in ideas of efficiency and effectiveness which are not new to the IS evaluation literature. Most approaches in this zone are developments of traditional cost-benefit analyses and standard accounting techniques although scholars warn evaluators that such accounting systems might shift the focus from core business processes to accountancy, thus becoming self-reinforcing systems (Powell 1992). To overcome the measurement problem of intangible costs and benefits, some scholars argue that IS evaluation should focus more on the impact on (or consequences for) business and should thus consider business goals and critical success factors instead of ‘pure’ costs and benefits (Earl 1992). Hence, it may be more meaningful to evaluate measures such as delivery time, sales targets, or time to market for new products. Earl (1992), in particular, argues that it is much easier to justify IS investments in terms of business plans because senior management are likely to understand them and the specific IT investment can be built into the business strategy.

Ultimately, the approaches using efficiency or effectiveness as indicators draw on a variety of disciplines ranging from economics and management to marketing, organisational behaviour and software engineering. Early work perhaps can be traced to rational choice theory considering that rational decisions (e.g. public investments in ICTs) may be considered decisions where the expected benefits outweigh the associated costs. User information satisfaction, for instance, can be traced as far back as Cyert and March’s (1963) seminal work. However, as we have argued above, these approaches are flawed because: 1) intangible costs and especially benefits are difficult to recognise and to convert into their monetary equivalent; 2) evaluation should not be exclusively considered as a problem of measurement which is inextricably tied to the scientific paradigm of inquiry (Guba and Lincoln 1996). On the contrary, evaluation should be viewed as a truly continuous and interactive process which uses methods that are subjective and qualitative rather than merely quantitative. In our view evaluation should not be undertaken to answer questions of theoretical interest, but it should take cues from those matters that local audiences find interesting or relevant. Following Guba and Lincoln’s (1996) lead, we label this evaluation effort as responsive evaluation to stress the fact that evaluation should be responsive to the requirements that local, regional and national stakeholders have suggested to be important.

3.3 Subjective/political paradigms

The subjective/political paradigms encompass a set of evaluation methods that is grounded in the qualitative or interpretivist school of thought rather than the scientific paradigm of inquiry. Within the interpretivist approach to information systems (Walsham 1993) one can pinpoint several perspectives such as the social construction of technology (SCOT) (Pinch and Bijker 1987; Bijker 1997), actor network theory (ANT) (Latour 1987; Law 1992; Law and Hassard 1999; Latour 2005), the hermeneutic tradition (Davis, Lee et al. 1992; Guba and Lincoln 1996) and the critical perspective (Macaulay, Doherty et al. 2002; O'Donnel and Henriksen 2002; Klecun and Cornford 2005). These theories share a common theme because they all see evaluation as a political process and emphasise the need to evaluate
in context by using social, not only techno-economic, factors (Smithson and Hirschheim 1998; Wilson and Howcroft 2000). Yet they do have distinctive features to the extent that they are based on different assumptions. For instance, ANT suggests that the social and the technical should operate on a level playing field whereas SCOT emphasises that technology is socially constructed, thus giving pre-eminence to the social over the technical. The hermeneutic tradition builds on this insight insofar as it focuses on meanings rather than interests while the critical perspective seeks to expose and undermine (or destabilise) the status quo.

An important step towards understanding evaluation moves from the premise that a service provider whether it is a private or a public organisation typically uses a wide range of information systems with different functions and objectives which, in turn, require different evaluation approaches. Farbey et al. (1993), for instance, espouse this overarching premise and they suggest a benefit evaluation ladder with eight rungs to classify different types of project according to the difficulty of evaluation. Moving up the ladder entails increasing benefits but also increasing risk and uncertainty, as well as increasing complexity in conducting the evaluation exercise (Farbey, Land et al. 1993). The evaluation ladder so suggested encompasses the following rungs, moving from top to bottom: a) Business transformation; b) Strategic systems; c) Inter-organisational systems; d) Infrastructure; e) Management information systems and decision support systems; f) Direct value added systems; g) Automation; h) Mandatory changes. Whereas the top rung, business transformation, refers to situations where IT needs to be evaluated as part of an entire major change initiative, the bottom rung, mandatory changes, includes situations where the function of evaluation is to compare the technical and cost aspects of alternative solutions for a change that has to take place.

A similar approach advocating different evaluation perspectives is given by Smithson and Serafeimidis’ (2003). By moving away from the assumption that evaluation should be seen as informing decision making, these scholars propose four possible orientations for IS evaluation based on two dimensions (i.e. impact of the proposed investment and perception of objectives). The horizontal axis of their framework, the impact of the proposed investment in IS, ranges from tactical to strategic according to whether the IS investment has a tactical or strategic role. The vertical axis, perception of objectives, ranges from consensus (i.e. clarity) to no consensus (i.e. ambiguity) (Smithson and Serafeimidis 2003). Each orientation does not exclude any other, but complements it.

Somewhat similarly, Gregory and Jackson (1992) consider evaluation methodologies as goal-based (or functionalist), systems-resource based (environmental adaptation), culture-based (organisational culture) or multi-actor based (political analysis). They then relate this classification to the evaluation team or ‘evaluation party’ and its internal variety (i.e. range of available perspectives) and approach (objective or subjective). Thus, a goal-based approach would suit an evaluation team with low variety and an objectivist approach, while a multi-actor approach would work better with an evaluation team characterised by a subjectivist approach and high variety (Gregory and Jackson 1992).

Another influential way to address the evaluation question is in terms of content, context and process (CCP) (Symons 1991). Content is concerned with ‘what’ is to be measured and evaluated and involves the selection of relevant criteria and values which go well beyond costs/benefits. Process involves the ‘how’ of evaluation, which is the way it is carried out, when, how often and how, the results are to be made available. The context involves the consideration of the question of ‘why’ the evaluation is to be carried out and ‘who’ is to do it. The context might well include the external environment or the internal environment according to whether one considers the overall business context where the entity under study operates or just its structure and culture. As well as the breadth offered by this approach, Symons (1991) emphasises the need to consider the interaction between the layers such as content-
context (to relate IS evaluation to organisational goals and strategies) and context-process (to link the process of evaluation to the environment). The CCP framework has been widely used in IS evaluation. Walsham (1993), for instance, made use of this framework and concluded that ‘the process of IS evaluation involves a discourse, often mediated by formal procedures, but in the context of informal stakeholder assessments’ (p. 179).

Finally, while some scholars have resorted to actor/network theory to explicate their theoretical stance on evaluation (DeVincenzi and Villante 2002; Smithson and Tsiavos 2004), others have suggested the use of balanced scorecards (Land 2000) by arguing that balance scorecards overcome the weaknesses of traditional return-on-investment measures of performance by adding measures that reflect customer satisfaction, internal business processes, financial perspectives, ability to learn and grow, as well as the employee perspective.

3.4 A review of the information systems literature for the management of public interventions

The previous discussion has focussed on alternative theoretical and disciplinary approaches to the evaluation questions, we now review the literature on information systems for the management of public interventions by looking specifically at: a) the extent that management actually uses information produced by information systems in decision making; b) the factors influencing the quality of the information systems for management; c) the importance of the inter-institutional relationships between stakeholders; d) the articulation between monitoring and evaluation.

For the first issue (i.e. the extent management makes use of the information produced by information systems), it is worth noting that conventional decision theory argues that relevant information will be gathered and analysed prior to decision making. Yet empirical findings show that managers systematically use the information produced by their information systems after their decisions have been made (Feldman and March 1981). This means that information can be used strategically by managers because it has a symbolic value that legitimises the decision-making process. Besides studying the information systems for the management of public interventions and the associated use of information produced by monitoring systems, therefore, we will focus on the social norms within which decision making is undertaken. A culture where information stands for efficient decision making will probably lead to a glut of investments in information systems where information will be used to justify certain decisions at the expense of alternative decisions. Interviews conducted with desk officers in Italy, Spain and England seem to confirm that managers suffer from information overload. In other words, it is entirely possible that, rather than using the information efficiently, managers might use it strategically.

Following Feldman and March (1981), Bulgarelli and Gori (2004) suggest that, in the realm of public interventions in general and vocational training in particular, there is a problem of ‘information asymmetry’ between the supplier of an intangible service such as education and health, and the interests of the principal (i.e. the European Commission or the Member State administration). The actors (i.e. the training agencies) whether public or private have profit-maximisation goals that do not match the principal’s goals aiming for increased employability and reduction of disparities for certain groups of people. The solution, they suggest, lies in the creation of a ‘training market’ in which training agencies
are selected on the basis of minimum certification standards set out by National/Regional and local administrations (Bulgarelli and Gori 2004). According to this train of thought, information systems in support of monitoring (i.e. databases, data-mining and data-analysis tools) should be able to help the principal (i.e. the European Commission or the Member State administration) in the decision-making process by providing evaluations on the employment effectiveness of a vocational training intervention enacted by the training agency so as to be able to relax certification controls. Thus, the information system should be designed in such a way that the questionnaires and the methodologies used for follow-up labour surveys are identical and outcomes can be tracked.

Studies concerning the use of information by public managers abound6. Shangraw (1986), for instance, has conducted a hypothesis-testing exercise based on the following hypotheses: 1) there is an inverse relationship between the level of computer knowledge and the frequency of computer use for decision making; 2) individuals who select computer information with little or no computer experience are likely to experience problems using computer information, to be less familiar with the problem domain, and to be less confident in their information choice; 3) a decision maker prefers hardcopy information when computer-based information is either more costly or difficult to access or both; 4) decision makers who predominantly select computer-based information are more committed to their decisions; 5) individuals who experience problems using computer-based sources of information during the decision-making process alter their media preferences and are less committed to the decision. He chose an experimental laboratory setting to evaluate these propositions and divided the subjects into four experimental groups. The subjects were presented ten ‘information bundles’ to assist them in making their decisions. Five of the bundles were printed and five were computer-based. The hypothesis on computer literacy was not supported. In other words, the more one knows about the computer or the more one uses the computer, the more likely computer-based information will be chosen. Hypothesis two was supported considering that individuals with little or no computer experience were more likely to face problems using computer information. Hypothesis three was strongly supported showing that when computer-based information is costly or difficult to access, individuals prefer hardcopy information. Hypothesis four and five found little support (Shangraw 1986). Although based on a case which looks at the implementation of flexitime in a bureau of the US Social Security Administration, this case study tests the interesting proposition that the extent that public managers use the information produced by information systems in general, and monitoring systems in particular, depends on the cognitive abilities of the managers themselves.

With regard to the second issue (i.e. the factors influencing the quality of the information systems for management) four criteria seem to be paramount7: a) the participants in the organisation and the management of the systems: potential conflicts may accompany the development of the social architecture of these systems because of the parties' vested interests; b) the definition of information: one needs to use a codified language to define the units of observation, as well as the variables and the indicators; c) the development of supports: these supports include databases, management software, dashboards, etc; d) social and technical interfaces: these interfaces allow for collaboration between and among administrations other than the use of procedures, registers, data banks which do not use necessarily the same codes. Indeed the Italian experience with Monit, the information system of the Italian Ministry of the Economy, shows that the quality of this monitoring system was deeply thwarted by communication problems concerning the exchange of data between local authorities and the

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6 See, for example, the special issue of the Public Administration Review (1986).
centralised system, thus leading to its replacement with a newer version called 'Monitweb'\textsuperscript{8}. Another example comes from England where, although the overall plan is to rely on the Internet to facilitate the information flows from co-financing organisations (CFOs) to Government Offices (GOs), monitoring data are often exchanged either manually or via floppy disk.

Considering quality in a broader context, three approaches to quality assessment may be identified (Donabedian 1966). Outcome may be taken as one possible approach to quality. Since outcomes seem to be fairly concrete, one may conclude that they are amenable to more precise measurement. Although, by and large, outcomes remain the ultimate validators of the quality of monitoring systems, one needs to recall their limitations: in some cases (i.e. impacts), long periods of time elapse before relevant outcomes are manifest. In other cases, outcomes might not be easily measurable. In yet other cases, they either miss out the nature and location of the deficiencies or strengths to which the outcome might be attributed or they neglect the cultural differences at stake. Another approach to the assessment of quality is then to examine the monitoring process itself where the process may be conceived of as a means to the achievement of outcomes (i.e. ends). This approach to the assessment of quality may be conceptualised as the measurement of procedural end points with respect to values, standards and validation. The third approach to the assessment of quality is to study the setting in which monitoring takes place, which is the structure. This approach allows us to deal with fairly concrete and accessible information, its major limitation being that the relationship between structure and process or structure and outcome is often not well established. In the selected approach to evaluation (see chapter 4) we incorporate all three of these aspects of quality into an integrated framework in the belief that they each offer significant insights, but more particularly, they each need to be assessed in terms of the other to achieve a richer understanding of quality.

Our methodology is further refined to address the quality of monitoring systems by identifying four performance variables,\textsuperscript{9} namely a) quality of information; b) reliability of the system; c) quality of information architecture; d) cost of monitoring system. Briefly, the quality of the information required by the participants in the monitoring system depends on its relevance to them and, therefore, its usefulness. The higher the degree of relevance or usefulness, the higher the quality of the information. High quality information, in turn, is what separates information from data and, therefore, what defines information in the eye of the monitoring system participants. The reliability of the system, additionally, contributes to its quality and is the direct function of its data coverage and the inverse function of the average size of errors and their frequency. The quality of the information architecture reveals whether the system is integrated or segmented from the institutions, its flexibility and adaptability, the security, integrity and recovery plans. Finally, the cost of the monitoring system is a function of the time spent in providing and retrieving information, the real cost of technologies and the cost of mistakes.

We believe that this set of performance variables, synthesised from the socio-technical account of structure, process and outcome, will allow us to assess the quality of the monitoring systems studied even more so if looked at from an information agreement perspective.

In the field of evaluation many scholars propound the need to focus on outcome variables because of the tenuous link between processes and outcomes (Fitz-Gibbon 2002). Far from being based on outcome variables exclusively, our set of performance areas is indeed the upshot of the interaction between structural, procedural and outcome variables (Donabedian 1978) because for each performance

\textsuperscript{8} ISFOL (2003), ‘La valutazione intermedia del Quadro comunitario di sostegno del Obiettivo 3 in Italia.’

\textsuperscript{9} See Section 4.6 below.
area we will endeavour to track the processes, as well as the structures that contribute to the achievement of that specific outcome. As it is pointed out below, such structures, processes and outcomes will be analysed from a socio-technical perspective.

As far as the third issue raised above is concerned (i.e. the importance of the inter-institutional relationships between stakeholders), the principles of partnership and programming introduced by the 1988 reform of the Structural Funds require that the Commission departments dealing with the various Structural Funds and the National/Regional authorities in the Member States discuss in partnership the submission of development plans outlining National and Regional strategies. These plans, in turn, result in Community Support Frameworks (CSFs) setting out the priorities for Structural Fund assistance with indicative allocations from each Fund and Operational Programmes (OPs) outlining for each field of activity the way the Funds are to be used\(^{10}\). The partnership concept is continued into the implementation and monitoring phases with the Commission working with the National, Regional and local authorities in tracking the progress of the various OPs to identify the fine-tuning and changes indicated through experience. Partnership in this phase frequently involves a wide range of local, social and economic actors as well. Examples of such partnerships abound: there are development partnerships (DWP 2004), direct partnerships at the local and Regional level (DWP 2004), partnerships between Federal and State MAs and MCs (in Germany for instance), between regional and sectoral MAs (in Greece and Portugal for example), etc.

It is worth stressing that in the allocation of Structural Funds the Member States and the regions play the roles of the agents, while the Commission is their principal (Leonardi 2005). This principal-agent relationship has been substantiated by such requirements as the systematic monitoring and reporting of expenditures, the N+2 rule (i.e. expenditures of allocations within two years or forced restitution of non-used portions), the introduction of mid-term and final evaluations as an obligation, the 4% performance reserve, etc. However, these inter-institutional relationships are part and parcel of a broader picture encompassing socio-economic convergence to achieve the political objective of cohesion whereby greater equality and equity is attained within the territorial units of the European Union (Leonardi 2005).

Far from being determined by a single actor (i.e. the nation state or the European Commission), cohesion policy is based on a network of inter-institutional relations between various actors (i.e. European, National, Regional, local and representatives from civil society) whose interactions are governed by a hierarchy of rules (i.e. EU regulations, National laws, Regional and local legislation, and the procedures of interest groups and voluntary associations) that make possible their participation in the various phases of the policy process. The functions carried out by each level below the European Commission depend to a great extent on the institutional structure of each Member State. The role of Regional and local actors should be more pronounced in Regional or Federal systems (e.g. Flanders, Italy, Germany and Spain), while National actors should play a dominant role in centrally-dominated systems (e.g. England, Portugal, etc.). Regardless of the political actors involved in the process, the European Commission cohesion policy is based on the belief that the public allocation of resources must be able to mobilise investments from the private sector to create a multiplier effect to sustain development in the medium to long term (Leonardi 2005).

\(^{10}\) CSFs, OPs and the later introduced Single Programming Documents (SPDs) fall within a policy frame of reference which, broadly speaking, for the ESF corresponds to the European Employment Strategy (EES) although some EES actions may fall outside the scope of the ESF and vice versa. Moreover, there are five main policy fields for ESF activity: 1) developing and promoting active labour market policies; 2) promoting equal opportunities for all in accessing the labour market; 3) promoting and improving training, education and counselling as part of a lifelong learning policy; 4) promoting a skilled, trained and adaptable workforce and 5) improving women’s access to and participation in the labour market.
Finally, with regard to the fourth point raised above (i.e. the articulation between monitoring and evaluation of the programmes), we note that monitoring is defined ‘as the continuous process of examining the delivery of programme outputs to the intended beneficiaries and is carried out during the execution of a programme with the intention of immediately correcting any deviation from operational objectives’\(^{11}\). Evaluation, otherwise, includes the analysis of outputs, outcome and impact, but also the processes and mechanisms of implementation. Evaluation demonstrates how the objectives have been reached\(^{12}\). In other words, at the programme level, monitoring has the objective of building a foundation for evaluation in order to ensure improved value for money from the evaluation expenditure (Taylor, Bachtler et al. 2001).

Two factors complicate the monitoring process in this case: first, in the multi-tiered partnership context which characterises Structural Fund delivery monitoring relies on cooperation between many involved actors at many levels. Second, at these different levels, from the EC down to the individual project, monitoring is undertaken to meet multiple and different objectives ranging from policy analysis, input to individual programme steering, financial management of programmes, accountability/transparency (EC level) to programme development, implementation, financial/strategic management, control/evaluation (programme level) and accountability (project level).

The aforementioned distinction between monitoring and evaluation is corroborated by Nicoletta Stame who argues that monitoring cannot by itself ‘constitute the judgment that evaluation aims at’ (p. 97). In other words, evaluation is conceived of as a much broader undertaking which encompasses a variety of elements to be assessed such as coherence between objectives and interventions, efficiency in the use of resources, effectiveness of outcomes, etc. According to this logic, monitoring is simply the basis for accountable management (Stame 1998)\(^{13}\).

Monitoring also has a distinctive role within the ESF programmes. The general provisions on the Structural Funds distinguish between a Monitoring Committee and a Managing Authority. Whereas the Managing Authority is the body designated by the Member State to manage the Structural Funds’ programmes, the Monitoring Committee supervises such programmes with the purpose of seeing that the targets are being met. It also assesses and approves the annual and final implementation reports on the programmes before they are sent to the Commission. Although our efforts are not meant to judge the performance of ESF interventions for the period 2000 – 2006\(^{14}\), we will endeavour to take into account the aforementioned articulation between monitoring and evaluation of ESF programmes in the complex tangle of inter-institutional relationships within Members States and between them and the European Commission.

\(^{11}\) Cf. the Open Call for Tender n. VT/2005/95 (p. 6).
\(^{13}\) Similarly, other scholars conceive of monitoring as the critical input for evaluation. See, for instance, http://www.gefweb.org/MonitoringandEvaluation/MEAbout/documents/Policies_and_Guidelines-me_policy-english.pdf
\(^{14}\) Cf. the Open Call for Tender n. VT/2005/95 (p. 6).
4. Theoretical framework and description of methodology

The literature review presented in the previous chapters shows that, besides user satisfaction criteria, a broader theoretical framework for evaluation is needed to account for cultural, political and institutional factors and acknowledge that information systems permeate not only work practices but also organisational and institutional practices (Cornford, Doukidis et al. 1994; Klecun and Cornford 2005). Thus, we use in this study an evaluation framework to access data from our field studies in the form of a socio-technical matrix with structure, process and outcome as one dimension, and technological context, actors/participants and systems functions on the other side (see Table 4.1). However, before we describe in greater detail this aspect of our work we consider how we are to understand the basic object of study here, monitoring in and of itself.

4.1 Conceptualising Monitoring

In chapter 3 we have explored monitoring within the literature and presented the definition drawn from the Call for Tender as our guiding definition:

the continuous process of examining the delivery of programme outputs to the intended beneficiaries […] carried out during the execution of a programme with the intention of immediately correcting any deviation from operational objectives\(^{15}\).

We contrast monitoring with evaluation, with the latter defined as:

the analysis of outputs, outcome and impact, but also the processes and mechanisms of implementation. Evaluation demonstrates how the objectives have been reached\(^ {16}\).

We also suggest, drawing on the literature, that there is a link between the two at the very least in as far as, at the programme level, monitoring may have as one of its objectives building a data foundation for evaluation activity and cite Stame (1998) as arguing that monitoring cannot by itself “constitute the judgment that evaluation aims at” (p. 97). In these terms, evaluation is conceived of as a much broader and essentially judgemental undertaking which encompasses a variety of elements to be assessed such as coherence between objectives and interventions, efficiency in the use of resources, effectiveness of outcomes, etc. According to this logic, and rather dismissively, monitoring is described by Stame (1998) as “simply the basis for accountable management”.

This seems to be a rather too easy a dismissal of the role of monitoring and in the following section we elaborate a little more the account of monitoring which we bring to this research, and its reflection in the theoretical framework we are using, both the socio-technical grid, and the concept of information agreement.

\(^{15}\) Cf. the Open Call for Tender n. VT/2005/95 (p. 6).

4.2 Why must we monitor?

As a start we might imagine a programme implemented without monitoring. The programme, once embarked upon is ‘managed’ by the implementers, but not monitored. We may assume that the implementers have their own management processes, systems and structures, including management information systems, and that these systems (computerised or not), maintain some data resources linked to the operational activities within the programme and its achievements. At the end of the programme or at specific intervals within the programme, some form of evaluation may be undertaken on the basis of data obtainable from the operational systems. In such evaluation we can recognise three distinct types. The first is an *ex-ante* evaluation undertaken in the setting up of a programme and largely independent of any operational activity. This type of evaluation is the most removed from monitoring since it predates any programmatic activity. The second is formative evaluation, an activity that is intended to shape in some way the programme itself in its own duration - shown as Formative 1, Formative 2 in the diagram below, and linking its output back to the programme. Finally we have a summarised evaluation (*ex post*) intended to present some overall judgement of the programme and to inform future activity.

It is central to this model that evaluation, of any type, is undertaken at discrete points of time, and is essentially undertaken outside of the programme itself (for example by an independent evaluator or evaluation body), though as the literature review indicates, some authors argue for a more inclusive or embedded style of evaluation (Smithson and Hirschheim 1998). It is perhaps the formative evaluation that comes closest to a monitoring role and indeed it may intersect with it. But we will argue that it is conceptually distinct because of first the independence of an evaluator, second the discrete temporality, and third the reliance on operational data.

**Figure 4.1**: Types of evaluation: ex-ante, formative and summarised evaluation
A model such as the above is not judged, however, as being appropriate by the various European Member States which engage in large scale programmatic activities in general and ESF policies in particular. This may be accounted for a number of reasons:

- the management processes of implementers may be judged as lacking an essential ‘steering’ dynamic and this will be exacerbated in the case of a programme with a longer duration in which more uncertainty will be faced by the implementer;

- the periodicity of the formative evaluation may be judged as too coarse (too infrequent, too abstract, too little aimed at immediate change);

- the management information systems of the implementer may not be able to generate and sustain an information resource that can support both formative and summative evaluation activity.

In the case of the ESF we have a more distinct reason to add an explicit monitoring activity as an important part of the programmatic activity. This is the existence of the programmes within a (broadly) hierarchical set of institutional structures (Commission, National, Regional etc.) that specify distinct roles, and competencies in various situations, as discussed in chapter 2. The key to the significance of monitoring for this study is the existence of multiple complex organisational and institutional ecologies.
in the various countries and deriving from their national traditions of government and administration. This diversity then makes monitoring a necessary activity to retain some coherence for the programme as a whole. We should also note that this diversity makes monitoring a fundamentally problematic activity in that it is part of the mechanisms that mediate between the common assumptions of the overall programme, and local implementation contexts (expressed in a mix of technical, social and institutional terms).

4.3 Monitoring as institutional glue

Given the complexities found in most countries’ systems of government and administration, textured and layered as they are by sedimented accretions of history and geography, ESF programmes as expressed for example in the CSF do not generally match neatly existing institutional structures as noted by Lang (2003). In particular, they normally ask for the establishment of (relatively) new sets of relationships between institutional actors – for example between a Ministry, a Regional Government, and private sector training providers. Although drawing on small sample which is not representative of the broader European reality, Lang (2003) addressing this aspect is able to describe only one example, from Germany, of what he calls ‘absorption’ in which the inter-institutional requirement (in this case for policy making) is matched directly by the local structures.

We argue that one consequence of this enduring ‘mismatch’ is the need for monitoring. That is, monitoring serves as an inter-institutional mechanism to assure partners that activities of the ESF are going ahead in such a way as to meet the overall objectives, and in such a way as to respond intelligently to new contingencies. This is not the purpose of evaluation with its overtones of judgement, nor of operational MIS systems that generally struggle to span organisational settings. We thus argue that monitoring is fundamentally concerned with enabling new or strengthened inter-institutional relationships, and see monitoring as neither conceived as just a better or more complete MIS (serving essentially the Implementer), nor as a synonym for evaluation. Rather we see monitoring as a relational construct the serves to (or should serve to) pull together diverse actors in pursuit of a common but disjointed aim.

So, for us monitoring is a particular kind of institutional glue. Something that exists to enable and allow the multi-organisational programme deployment environment to operate, allows the multiple institutional actors to retain some mutual confidence and dynamic interaction through time, and which (ideally) allows the delivery of the programme to be both responsive to events in its deployment environment, as well as to allow the various institutional actors (for example the programme implementers) to build or retain their credibility as partners within the overall inter-organisational system. Below we link these ideas to the theoretical construct of an information agreement, the mutual commitment to sustain the monitoring activity.

In the figure below we then elaborate the situation to include generic ‘institutions charged with oversight of programme activity’; in the specific cases studied here we can be more specific and name them as, for example, the Managing Authority and the Monitoring Committee in any individual country. However, we should note that this model can of course be elaborated to a more complex or deeper hierarchy, as is the case in various countries we have studied.
The monitoring activity should not, however, be taken as simply a hierarchy of power (a simple control construct). There are indeed reasons why the higher authority wants to monitor, but there may be also, and this is an empirical issue we explore in the field studies of this project, reasons why the lower level implementer wants to engage in the monitoring activity and even to be monitored. For example, this may be to support their own MIS process, demonstrate their effectiveness, build their reputation or benchmark their performance against others.

**Figure 4.2:** Conceptualisation of monitoring

Monitoring is an inter (or multi) organisational construct, depicted in the figure as a hierarchical relationship, in which one party (above) monitors, and another party is monitored, but which should be conceived as (potentially) one of mutual benefit as noted above. The monitoring relationship is instantiated in structured information flows which construct and disseminate ‘indicators’ to capture and summarise key aspects of the activity being undertaken. As noted in chapter 3, such indicators are in general synthetic because they simply describe the variables they are supposed to represent (for example, days of teaching, training hours, etc.). Such indicators are usually related to some implicit or explicit goals and indicators would not, in general, be specified within a monitoring system unless somebody thought that what they purported to measure was important. The synthetic character of indicators is also a consequence of their articulation of multi-organisational interests, which are themselves synthetic. That is, indicators are a negotiation or compromise, and as such express in part
the information agreement. That said, we nonetheless see empirically that in general the specification of indicators comes from above, and thus expresses the interests and concerns of those above. This helps explain why, in general from the empirical data reviewed we see that monitoring information does not directly flow out of the local MIS, since the local management has different concerns. It can also help explain why monitoring information is often conceptualised as an overhead, a chore or an imposition. It further leads us to the general recommendation that the more coherent the indicators for the lower levels of the hierarchy, the more successful monitoring will be.

We must also consider that monitoring activity – shown in the bold arrows, extends into but also beyond the lower level. Thus monitoring is about seeing into the subsidiary organisation, but also about seeing beyond or below this, to the field of action. In the figure this is depicted as two discrete sets of arrows, implying that there are some internal but indirect connections which allow the upper level to track actual activity. This becomes a significant empirical issue for our studies – e.g. the extent of ‘drill down’ (or perhaps we should say ‘drill through’) that a monitoring system allows, and the ‘traceability’ of monitoring indicators in the sense of their disaggregating into MIS entities.

Finally, we need also to consider aspects of the temporality of monitoring. When does it happen, how often and to what cycle? If monitoring were just peering into the databases of the subsidiary organisation, then this might not be much of a question – or at least just one of how well those databases are maintained or integrated into the MIS, or how motivated the monitors are to avail themselves of such an opportunity. However, in a programmatic activity such as the ESF this is not so simple. The temporality of monitoring is an expression of the power and ambition of the actors and their commitment to work together – what we have called the information agreement – and which we return to below.

4.4 The Socio-technical Grid

Our relational and multi-level concept of monitoring calls for an evaluation framework that can encompass both the technical/formal aspects and the institutional/social ones. Our chosen approach is presented here in the form of a matrix with structure, process and outcome as one dimension, and institutional context, actors/participants and systems functions on the other side (Table 4.1).

<table>
<thead>
<tr>
<th>Institutional Context</th>
<th>Actors/Participants</th>
<th>System Functions</th>
</tr>
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Table 4.1: Evaluation framework (Adapted from Cornford et al. 1994).
The use of the structure, process and outcome perspective is based on the seminal work of Donabedian (1966) relating to the assessment of quality in health care (see also section 3.4). The essential insight that he brought was that, in the health care sector, a single focus on measuring outcomes was not appropriate. He rather suggested that to assess quality required a parallel focus on the processes of health care, and on the structures within which they take place. Each perspective is valuable, and each can offer useful insights, but more so if taken in combination. This approach has become well established in health care, but its applicability can be seen as being wider. In this case we are addressing the ‘quality’ not of health care, but of ‘information systems and monitoring arrangements’ – but the essential insight does transfer. The quality of monitoring can only be assessed if the structures that host it are recognised, the processes that are undertaken are explored, and the outcomes achieved are assessed. Donabedian also established the need for a variety of research approaches and techniques to be used in assessing quality – rather than any one narrow or privileged view. Donabedian’s ideas were developed further by Cornford, Doukidis and Forster (1994) to produce a matrix of structure, process and outcome as one dimension and system functions, human perspectives and institutional context on the other. Echoing Cornford, Doukidis and Forster (1994) work, we here suggest a matrix with

<table>
<thead>
<tr>
<th>Structure</th>
<th>Process</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rules, Regulations within National administrative structures. Overall setting in terms of CSF, National and Regional OPs, etc. (Q3)</td>
<td>Functions performed by institutional actors and tacit premises affecting their interactions (Q2)</td>
<td>Consequences for institutional structures including unintended institutional outcomes and effects in the wider world (Q2)</td>
</tr>
<tr>
<td>Stakeholders (i.e. public, private and not-for-profit entities) (Q3)</td>
<td>Factors which shape the interaction between and among the various stakeholders. Costs &amp; benefits. (Q1/Q2)</td>
<td>Degree of satisfaction of various stakeholders (Q2)</td>
</tr>
<tr>
<td>Technical detail of operational databases (integration, segmentation, etc.) and indicators (Q3)</td>
<td>Interoperability between and among interfaces (Q2)</td>
<td>Data segmentation, traceability, efficiency (Q2)</td>
</tr>
</tbody>
</table>
institutional context, actors/participants and system functions on one side and structure, process and outcome on the other because, based on the data deriving from our first stage of the fieldwork, we believe that it is important to introduce the overall institutional setting first before dwelling upon the various actors or stakeholders which undertake diverse monitoring activities with the support of a variety of information systems. In our data analysis (see chapter 5 below) we shall refer to the various actors/participants (e.g. Managing Authorities, Regions, Government Offices, etc.) as engaging in social processes within a specific social setting (or structure) with the intent of producing a set of social outcomes to emphasise the social nature of their monitoring activities.

Further to this approach we could, for instance, evaluate monitoring arrangements from the perspective of different participants, thus addressing question one as set out by the Call for Tender (i.e. *What are the factors that shape the interaction between participants in the monitoring systems?*). However, far from looking at the participants exclusively, our framework has the advantage of considering directly the technology used (i.e. systems functions), as well as the institutional setting. The framework thus encompasses institutional, social and technical perspectives and serves to address the long-term prospects of a system i.e. its sustainability within a technical, social and institutional context. The use of this framework should lead to the evaluation of monitoring arrangements beyond a few narrow and de-contextualised criteria.

Despite its breadth, our framework should be understood as just an approach which does not and indeed cannot include all the variables partaking in the construction of the complex socio-technical context where monitoring occurs. This limitation notwithstanding, the framework can guide evaluation activities and the choice of criteria, thus serving as a flexible template within which specific evaluation criteria and methods can be located and related one to another in analysis.

As a simple primary route through data the model allows consideration of how institutional structures (i.e. rules and regulations) link to social processes and create technical outcomes – a simple diagonal. Such a reading of data might produce a clear understanding, but it is more likely that tracing such a simple chain of understanding will raise questions or pose contradictions (for example, how come ‘good’ technology did not lead to ‘good’ social processes, or vice versa; how was a fragile and incomplete technology accommodated and made useful by various participants?). Resolving such a contradiction will then require a shift of attention to some other aspect of a system – perhaps in technical outcomes (for example, non-use of certain functionality), or be found in the prior attitudes of certain stakeholders. Considering the interaction (interrelations) between the conceptual cells achieves a deeper level of understanding (a hermeneutic reading of the research data) by moving from understanding parts to understanding wholes and back again.

In this framework, structure refers to current resources and actors, and the characteristics of the work setting. The intersection between the ‘structure’ and ‘institutional context’ cells reveals the rules and regulations in place, as well as the overall institutional setting of a specific country under investigation (i.e. number of CSFs, OPs, etc.). The intersection between the ‘structure’ and ‘actors/participants’ cells discloses the various stakeholders who participate in the monitoring activities be they public, private or not-for-profit entities. The intersection between the ‘structure’ and ‘system functions’ cells encompasses the technical components used to implement the information system, both as already established and as introduced as part of the implementation. Technical elements offer specific functionality and may displace old practices. Technical elements also encompass the set of indicators in place.
Process refers to the way things work and are worked out; how parts interact or operate to perform individual and collaborative tasks. Process is concerned with the activities that occur within the social setting under investigation as they relate to monitoring and its management. Process is to some degree under the influence of the actors/participants through their professional training and experience, but is equally conditioned by the structural characteristics of the technology employed. It is likely that the real significance of a monitoring system is to be found not in the technical characteristics of the supplied technology, but in the activity of accommodating it and negotiating it into use. Following Ciborra’s et al. (1987) lead, we define the process of accommodating and negotiating a monitoring system into use as an ‘information agreement’ to stress the need to provide the various stakeholders appropriate incentives to generate and share information. In other words, we believe that monitoring systems should be regarded as negotiated-exchange networks which support the negotiation process between and among the suppliers of information so that all parties are willing to share their pieces of information (Fugini, Maggiolini et al. 2005). Thus, far from being an inter-subjective concept, we see the ‘information agreement’ as being an inter-organisational concept which, provided that the right information systems are in place, can even operate at the inter-institutional level.

The intersection between the ‘process’ and ‘institutional context’ cells discloses the functions performed by the institutional actors (e.g. Managing Authorities, Monitoring Committees, etc.), as well as those tacit premises that affect institutional practices (e.g. the inter-institutional relationships between Member States and EC Departments, the interdependencies between various Monitoring Committees, etc). The intersection between the ‘process’ and ‘actors/participants’ cells identifies the factors which affect the interactions between and among the various stakeholders that participate in the monitoring process, these factors depending upon a complex set of incentives to share information (i.e. benefits versus costs). The intersection between the ‘process’ and ‘system functions’ cells reveals the way that the technical components work together as a system so as to ensure the interoperability between and among the technical interfaces or the lack thereof.

Traditionally outcome is associated with measures of information systems effectiveness and efficiency, but here is extended to include the enduring state of technology, the quality of the service, as well as the effects in the wider world. The intersection of the ‘institutional context’ and the ‘outcome’ cells reveals unintended consequences deriving from the inter-institutional interactions and the effects in the wider world. For instance, it may well turn out that in a specific country there is a general perception that the ESF requirements are overwhelming, yet no-one really knows who set up such monitoring requirements along the institutional chain. The intersection of the ‘actors/participants’ and ‘outcomes’ cells reveals the extent to which the individual actors/participants are satisfied with the way the monitoring activities are undertaken. Finally, the intersection of the ‘system functions’ and ‘outcome’ cells discloses whether monitoring data are segmented in an appropriate way, whether technology is functioning efficiently and is tracking the indicators it is supposed to measure.

Ultimately, the advantage of resorting to an evaluation framework such as the one depicted above is that it allows us to study and evaluate monitoring systems for the programmes supported by the ESF from a socio-technical perspective while simultaneously removing the assumption that evaluation in general and performance indicators in particular should be seen only from above.
4.5 Conceptual linkage between the theoretical framework and the project activities

As stated in the previous sections, this socio-technical grid is used as a theoretical lens which allows us to address the questions set out by the Call for Tender n. VT/2005/95. It provides us with a strong basis around which to organise the work and we see it specifically as able to serve for 5 principal purposes in this work:

1. The framework serves to frame the essential socio-technical perspective we apply to the work and to emphasise the relevant distinction between, in the one dimension, the study of structure (extant organisational arrangements, resources and capacity), the process (what is done, by whom and how), and the outcomes achieved (the results that are seen). The second dimension of the framework elaborates this basic set of perspectives in terms of the institutional setting, the social actors and the technical elements. We would emphasise, however, that this is not intended to be a set of distinctions that fragment the activity into separate and unrelated elements (e.g. study of technical systems separated from study of work processes) – rather the framing is intended to allow these elements to be systematically related one to another.

2. This leads to the second purpose that the framework serves, as a means to expand and articulate the specific research questions, to ‘open them up’ in a way that allows us to relate them together – this theme is developed further below.

3. The third purpose, which then follows, is as a means to identify areas of relevant data collection. We have collected some data relevant to each cell of the framework in each country studied. In terms of structure most of this has been by desk research while the empirical fieldwork has focused mostly on the process issues and understandings of outcomes.

4. The fourth purpose that the framework serves is as a means for the display and analysis of the data within the chosen socio-technical perspective. As well as being the theoretical foundation of our approach to the study of the monitoring activity, the framework also guides us in the process of presenting and analysing data. In assessing the monitoring activities of the ESF we have specific empirical data that relate to each of the 9 cells of the matrix. The use of the concept of an ‘information agreement’ has led us to place initial emphasis on the central cell, that is, where people engage in the activities of monitoring (entering data, using data, producing reports, taking action, receiving feedback, etc.). However, the concept of an information agreement can be equally applied to the technical elements (e.g. their ability or ‘motivation’ to process and share data), or to the institutional context as the information agreement between providers, projects, programmes or Member States. However, any information agreement identified is necessarily predicated on certain ‘structural’ characteristics that will sustain it, and is made relevant by its ability to generate specific and relevant outcomes, be they technical, social or institutional. Thus our overall analytical approach is to trace out the information agreements at the core of the monitoring activity. On this basis we are able to identify and justify the criteria for assessing quality.

5. Finally, and following the discussion held at the inception meeting, we can use the framework to serve as a means to develop a common language and a guiding model for future engagement across the ESF activity around the question of monitoring and monitoring systems. This then links to the ultimate objective of the research, to establish usable concepts and criteria to categorise information systems/monitoring arrangements and assess their quality in order to inform future activity.
In the rest of this section we briefly elaborate on these purposes, starting with the articulation of the research questions into the framework.

### 4.5.1 Research Questions

**Question One: ‘What are the factors that shape the interaction between participants in the monitoring systems?’**

This leads directly to the central cell of the matrix, the intersection between the ‘process’ row and the ‘participants’ column. Focus here should reveal the factors that shape the social interactions between the actors who participate in the monitoring activity. The central idea around which this work is based, that of an information agreement, is that this depends on a complex set of incentives that actors react to as they provide data and share information. To the extent that each participant’s expected benefit from participation in the monitoring activity outweighs the associated costs they bear, the participant will have an incentive to cooperate and share information.

The information agreement is then a set of *explicit and tacit* agreements and understandings between and among the information systems’ participants that leads them to generate, share and act upon information. Information systems themselves are conceptualised as negotiated-exchange networks (rather than as hierarchical means of control). As discussed above, the same essential model is extended to apply to both the technical elements of the monitoring activity and the institutional settings. For example, data standards and classification schemes to use are negotiated as technical elements. Similarly the establishment of monitoring at the institutional level will reflect specific types of information agreement as between institutional actors; for instance one that is integrated into the exiting arrangements (structures) or loosely coupled from them.

**Question Two: ‘What are the information requirements a monitoring system for an ESF programme needs to address?’**

We locate this question by looking at the ‘outcomes’ row of the framework to discern the information and other outputs that a monitoring system needs to provide or support. These can be structured in terms of outcomes at the technical dimension in terms of working technology, appropriate data segmentation, but equally as satisfied or empowered actors and institutions that can service ESF goals and account for ESF resources. One can also track requirements along the ‘process’ row to see the procedural requirements that the system needs to meet as a socio-technical system (i.e. ensuring interoperability between and among the interfaces and meeting the socio-institutional requirements of the participants in the monitoring system and the various institutional actors). This question presupposes that we have a clear understanding of what monitoring is, and how it is differentiated from operational activities, evaluations and policy processes, as addressed in the section above. The use of the matrix can help in resolving this in that it allows us to clearly identify classes of outcomes that are deemed relevant from the three perspectives.

**Question Three: ‘What are the major types of support systems architecture and what determines their fit to the local programme implementation context?’**
The word ‘context’, used here relates directly to the level of structure, and we render operational this question by looking at the ‘structure’ row in the framework. Thus support systems architectures within their context can be investigated in technical terms (integrated, distributed, centralised), from a social perspective (public, private and not-for-profit entities creating the social structure) as well as a reflection of the institutional arrangements in place. We will also look at the broader socio-institutional context that underpins the support systems, and explore the degree of fit between support system architecture and institutional and social architecture. If, for instance, the socio-institutional environment is decentralised while the support system architectures are highly centralised, we may have a discrepancy between the two that might well generate implementation problems and have consequences for quality.

Question Four: ‘Which criteria are best used to assess the quality of a monitoring system for ESF funded programmes?’

This is the key evaluation question because it encompasses all the other questions considering that these criteria depend on the requirements of the monitoring systems as socio-technical systems (Q1/Q2), as well as the various types of support system architectures and their fit to the local implementation contexts (Q3).

To address this question necessarily implies a synthesis of the previous ones, and of the data derived from them. The framework then serves as a data grid from which we can draw relevant insights based on the data collected. In order to pull together this understanding we have identified four broad criteria that we will explore further. These are: quality of information (i.e. relevance, frequency, etc.), reliability of information and data (i.e. data coverage, average size of errors, etc.), quality of information architecture (i.e. segmentation, flexibility, etc.), and cost of information monitoring (i.e. cost of time, real cost of technologies, etc.). Thus, we intend to use our framework as a descriptive tool which underpins our evaluation tool, which is our set of performance areas.

4.5.2 Common descriptive tool and typologies of information agreement: embeddedness, scale and scope

We foresee this framework as potentially providing a common language to describe monitoring systems and assess their quality. We believe that, the concept of information agreement, when linked to this framework, can help promote a common descriptive language to categorise information systems and monitoring arrangements. Through the field studies undertaken, and their analysis, we will attempt to reveal the various types of information agreement in place for selected parts of the ESF in the various countries studied. The information agreement can be thought of as being located at or belonging to multiple dimensions of monitoring, as used in the theoretical model developed previously. That is, the information agreement might be seen as an expression of 1) institutional arrangements (formal relations and obligations); 2) of the technical elements bound into an information system (as common data definitions, network protocols, software standards etc.); or 3) as essentially a social construct, that is an expression of human agency that is negotiated within particular contexts.

For example, at the institutional level we can see the information agreement as part of the formal arrangements (even contracts) between providers, projects, programmes and public bodies or even Member States and the Commission. Likewise, at the technical level data standards and classification
schemes to use could be established as technical elements that allow information flows. However, in this work we place the emphasis on the social dimension as the starting point for the uncovering of the actual ‘information agreement in practice’, since no amount of good technology, not formal rules can assure the actual operation of such a system. This view reflects one of the central premises of the Open Call for Tender VT/2005/95, that monitoring systems or perhaps we should say “monitoring arrangements”, function as social systems generating and transmitting information (p. 5).

The findings presented below also reinforce the view that focusing exclusively or even mostly on ICT and systems of indicators (i.e. technical elements) is not sufficient and that in evaluating these information systems and monitoring arrangements we must take the institutional and social dimensions very seriously.

Following this train of thought we categorise here the information agreements seen in the case studies below in terms of three main characteristics. These three (embedded/hosted, scale and scope) operate at each of the three levels identified in the grid (i.e. institutional, social and technical) as indicated below. We also define the strength of the information agreement as the relationship among these three characteristics. The optimal situation is one where all institutional layers partake in the information agreement (i.e. large scale) so as to exchange information that captures as many facets of monitoring as possible (i.e. large scope) and their monitoring arrangements are appropriately embedded or hosted within the monitoring context under scrutiny so that each party obtains benefits that outweigh the costs deriving from monitoring.

4.5.2.1 Embedded or Hosted

First, we identify two polar types of information agreement which can be seen on a continuum, what we here label as embedded and hosted information agreements. Embedded information agreements are associated with monitoring arrangements which are formally (and effectively) embedded into the existing institutional, technical and work settings, processes and outcomes. In contrast, hosted information agreements are associated with monitoring arrangements which are partly embedded and partly separate from the extant institutional, technical and work structures, processes and/or outcomes. In other words, hosted information agreements are information agreements where formal and informal monitoring arrangements run ‘in parallel’ with each other.

Indeed, the analysis conducted below warrants an ecology of monitoring activities which need to be subsumed under different labels if one is to make sense of these complex monitoring processes. Taking these monitoring arrangements and the associated information flows as our point of departure, our framework allows us to identify three interrelated aspects which, by moving along a single diagonal, explain how institutional structures link to social processes to create technical outcomes. Should a country display monitoring arrangements which are formalised in the existing structures (through legitimised practices, e.g. contracts, conventions, etc.), work practices (through institutionalised feedback processes) and technologies (through pre-defined information systems), then that particular country will have an embedded information agreement.

In contrast, hosted information agreements occur when, at least in one dimension, the country under investigation exhibits a monitoring activity which is disembedded and loosely-coupled from its formal activities. For instance, if there are two monitoring processes which run ‘in parallel’ in relation to work

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17 For operational purposes, structures are nothing but snapshots of ongoing processes.
practices, then we believe that this nuance needs to be captured both conceptually and practically. From a conceptual viewpoint, the information agreement will be labelled as a hosted one, while from a practical perspective it becomes important to understand the rationale of these informal activities to make sense of monitoring as a complex socio-technical process.

All things being equal, we would expect that in the case of an embedded information agreement, work processes and technical elements would be drawn from and reflect strongly the institutional context. In contrast, in a hosted information agreement we might expect to find a stronger and more direct role for technology to reshape information flows and thus create an information agreement that sits outside of the institutional context.

4.5.2.2 Scale

As we will explain below, in practice monitoring arrangements may not be monolithic in any given country. Often monitoring will be undertaken as discrete or separate activities, with each element involving a limited number of actors that share an information agreement related to specific dimensions of the monitoring process. This gives rise to the concept of ‘scale’ as an attribute of an information agreement and as a measure of the number of institutional actors participating in the ESF programme involved in an agreement. A large “scale” information agreement occurs when a large number of actors involved in the monitoring process decide to share the information related to the ongoing activities of the programme.

It is not easy to directly say that a larger scale information agreement will lead to stronger information agreements. Rather, as echoed in question 3, we need to assess whether the scale is in some way appropriate to the context of the monitoring process. For example, in a highly homogeneous country with limited levels of governance and a clear policy/culture of centralisation, a large scale information agreement may be possible and support unified monitoring arrangements. In contrast, in a situation of devolved power or a heterogeneous institutional environment, a large scale information agreement may be very hard to achieve and dysfunctional. Rather, monitoring arrangements may be more appropriate if they are developed on a smaller scale and reflecting more bilateral relationships.

Ideally, large scale information agreements will be characterised by a large number and variety of actors operating at different institutional levels which participate in the monitoring processes. For operationalisation purposes, in the analysis below, we take access into core information systems as a yardstick for scale on the assumption that the larger the access, the larger the number of individuals who, ex ante, struck the information agreement so as to generate, share and act upon information. Thus, instead of studying the degree of access into every information system, we will focus only on the key information systems used within the country under investigation.

4.5.2.3 Scope

The concept of scope is perhaps more tractable than the other two concepts. By scope we mean the degree to which an information agreement covers various types of information. In the case of monitoring, and as expressed in prior work we are familiar, for example, with ideas of financial and physical indicators, of output, result and impact indicators, one could argue that the information agreement may have a large or small scope depending on the types of information which are covered.
Thus it may be that a given programme is monitored (to varying degrees) by separate systems (e.g. governed by different information agreements) in respect of one or other type of activity and data.

It is, at least according to the conventional understanding and prior work in assessing monitoring within the ESF (Ballart 1998), almost a given that a broader scope of the information agreement will lead to a stronger information agreement and support more powerful indicators. We, in general, support this view in that it is essential to monitoring as steering that the clearest picture of activity is presented and used.

Scope, in other words, should not be confused with quantity of information because it is deeply associated with its quality (or richness) as the more diversified the typology of indicators, the larger the scope of the information agreement. In principle, however, it is entirely possible that large-scale information agreements have a small scope and vice-versa. Indeed in the analysis below, we will show some of these ‘borderline’ cases.

4.5.2.4 Locating and extracting the information agreement in the socio-technical grid

These conceptualisations of the information agreement need to be made concrete so as to categorise our sample in relation to different typologies of information agreement, scale and scope. Our approach to this is shown in the table below as a set of characteristics for each cell that identify the relative measure in each dimension for each cell. For instance, monitoring arrangements can be embedded by shared and common technology or databases (technical), by common regulations (institutional) and/or by work practices that merge monitoring activities with the everyday work (social).

Scale similarly may be a matter of technology allowing access and inclusion (technical), established “rights to access” based on the hierarchy of power (institutional), but also the question of those who have access actually making use of it (social).

Scope too, for example, may be a matter of technology not being able to track all types of activity of indicators (technology), of regulations not covering all types of indicators (institutional) and/or of work practices focusing only on one typology of indicators (e.g., financial indicators).

4.5.2.4.1 Strength of the Information Agreement

As a summary measure we also use the concept of strength to assess the overall ‘intensity’ of the information agreement, and in this way as a basis for understanding which monitoring arrangements work well, and which could work better. We use strength as a composite measure that encompasses the three dimensions above and their relationship. To reiterate, the optimal situation is one where all institutional layers partake in the information agreement (i.e. large scale) so as to exchange information that captures as many facets of monitoring as possible (i.e. large scope) and their monitoring arrangements are appropriately embedded or hosted within the monitoring context under scrutiny so that each party obtains benefits that outweigh the costs deriving from monitoring.

In assessing strength the questions we ask of the information agreement then become: what is the cost/benefit ratio associated with the use of information systems? (if benefits outweigh costs then it is likely that the information agreement will be strong); how large is the scale and scope of the information agreement in relation to the overall monitoring process? (the larger the scale and scope of the information agreement in relation to the monitoring process, the stronger the information agreement). The table below outlines the three dimensions of the information agreement, as well as its strength:
Table 4.2: Outlines of categories of information agreement

<table>
<thead>
<tr>
<th>Type of information agreement</th>
<th>Scale of information agreement</th>
<th>Scope of information agreement</th>
<th>Strength (as a summative or composite measure of the previous three dimensions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embedded/hosted (monitoring arrangements can be embedded with technology, regulations and work practices or separate from them)</td>
<td>Scale can refer to technology (access &amp; inclusion into IS), institutions (‘rights to access’) and social factors (real use of access)</td>
<td>Scope can refer to technology (IS able to track all categories of indicators), institutions (regulations covering all types of indicators) and social factors (work practices focusing on all categories of indicators)</td>
<td>The more the benefits deriving from the use of information technology (IT) outweigh the costs, the larger the scale and scope of the information agreement, the stronger the information agreement</td>
</tr>
</tbody>
</table>

4.6 The performance areas

Our research design is based on the deployment of structured interview guides in 10 European countries which we jointly selected with DG Employment\(^\text{18}\). Drawn from our theoretical framework, the interview guide has been further corroborated by desk research to account for the institutional structures, processes and outcomes within the countries under investigation\(^\text{19}\). Our validation procedures encompass the double checking of the data we gathered conducted first by each Desk Officer within DG Employment and subsequently by the various Member States themselves.

Throughout this report, we have based our research strategy on an ongoing iteration between theory and data where we have endeavoured to distinguish between the assessment of information available through codified information systems and the analysis of information which is generated through other, not IS-related qualitative means. Also, we have taken the Managing Authority as the ‘entry point’ for our data collection and analysis and we have reconstructed the information channels below and above it by looking, wherever possible, at the interaction with the ‘delivery’ or ‘operating’ levels (e.g. project providers, training centres, schools, etc.).

To render operational our theoretical framework, we will undertake the following steps. First, we will use the typologies of information agreement we have already introduced (i.e. embedded v. hosted information agreement; large scale v. small scale information agreement and large scope v. small scope information agreement) to identify a set of concepts to categorise information systems and monitoring

\(^\text{18}\) In the rest of the report, we speak of ‘countries’ or mention ‘Hungary’ or ‘England’ (etc) for the sake of brevity, when in fact we specifically refer to the Hungarian case study on HRD OP, or to the case study on England and Gibraltar Ob.3 OP (etc).

\(^\text{19}\) For a detailed analytical description of each country see the fieldwork report in the appendix.
arrangements. Second, as it was described above, we will extrapolate a composite measure of the information agreement to assess its overall strength. Third, we will draw four performance areas from our framework (i.e. quality of information, reliability of information and data, quality of information architecture, and cost of information monitoring) to assess the quality of information systems and monitoring arrangements. Fourth, we will attempt to plot the performance of a given information system/monitoring arrangement as a function of the strength of the information agreement on the assumption that stronger information agreements lead to better performing information systems/monitoring arrangements.

The following map summarises the key performance variables, bearing in mind that such variables stand for our evaluation tool and are grounded in our theoretical framework. More in detail, the quality of information required is grounded in the participants’ column considering that work conditions (i.e. structure), social interactions (i.e. processes) and degree of satisfaction (i.e. outcomes) are crucial determinants of the quality of information. For example, satisfied and empowered participants who are willing to share information because of a strong ‘information agreement’ and stimulating work conditions will probably produce high quality information.

The reliability of information and data, in turn, is grounded in the intersection between ‘outcomes’ and ‘system functions’ to the extent that effective data segmentation coupled with working technologies allow for reliable information and data (i.e. data that consistently correspond with relevant facts).

The quality of information architecture depends on the fit between social and technical architectures (i.e. the ‘structure’ row in the matrix). Finally, the cost of information monitoring depends on a large number of socio-technical factors spanning the cells across the matrix. For instance, it is likely that the existence of an ‘information agreement’ between and among the participants in a monitoring system will reduce the opportunity costs associated with the time invested with sharing information. By the same token, the real cost of technologies should depend on the degree of fit between socio-technical infrastructures, as well as the interoperability between and among the interfaces. Although there is some degree of conceptual overlapping between these performance areas, they do cover both technical (i.e. data segmentation, traceability, efficiency, etc.) and social (degree of satisfaction of various stakeholders) factors (see Table 4.1).

**Figure 4.3:** Criteria to assess the quality of information systems and monitoring arrangements
More specifically, the four performance areas will look at the following items drawn from the framework:

1. **Quality of information**: The quality of information depends on the information requirements of the various participants in the monitoring system, as well as the requirements of the associated stakeholder institutions they represent. In terms of quality of information, we will specifically look at:

   a. the relevance of the indicators used by the system where by relevance we will, in very general terms, mean usefulness to whoever has to make decisions; as far as relevance is concerned, we will consider separately indicators meant to reflect:

      i. the advancement of the projects

      ii. the output and thus the efficiency of the actions, and eventually

      iii. the outcomes meant as the results that the programme manager intended to achieve in terms, for instance, of better skills, higher institutional capabilities, more employment or higher employability

   b. the expected frequency of the information release: in many instances indicators need to be tracked in time so that they can be monitored (referring to things like the change in time of the hours of training within a course that has not yet been completed, or the change over time of the employment rate of people who have undertaken some specific course).

2. **Reliability of the system** in terms of accuracy of the data and timing of its release as opposed to set expectations. We will measure reliability as inverse function of
a. average size of errors (in terms of difference between measured and real values, but also of distance between expected and actual timing of data gathering and communication);

b. frequency of errors (where we will differentiate between a system which shows a large error and another which, instead, displays much smaller but much more frequent mistakes);

However, we will also look at reliability as a direct function of

c. coverage of data (where we will see whether information systems cover all relevant categories of indicators).

3. **Quality of information architecture**: we expect systems to be different in terms of

a. segmentation of information (by type of policies, by type of projects, by type of beneficiaries, etc) where we will evaluate the degree to which different users will receive periodically different subsets of the information universe and thus the degree to which information flows are tailored to different user needs;

b. flexibility of analyses which a system can perform because information needs will never be fully anticipated and then it is important to understand the types of queries and elaborations that different users may be willing to apply and the capability of the system to respond;

c. integration of the monitoring system with the existing information system basis and thus the extent to which data flows of monitoring systems use information processed by the pre-existing information systems of the administration and organisations joining the monitoring system and release information to such pre-existing basis in a seamless mode;

d. existence of checks that increase the likelihood that mistakes are detected at an early stage and of recovery plans that may answer to system failures.

4. **Costs of monitoring system**: in terms of costs, we will consider the following items:

a. time spent by both information providers and information users in measuring/providing and retrieving/processing information; such a parameter will be a function of things like the user friendliness of the system and the operators abilities (skills) to use the system;

b. the real cost of technologies (software, hardware, networks) and other tools supporting the system;

c. the cost of mistakes; information systems do present an additional cost represented by the possible cost of wrong decisions made on the basis of wrong information; such costs are sometimes higher than for systems which rely less on automatic gathering and

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20 We expect that, for instance, the kind of information needed for the user at the European Commission or National level (whose interest is expected to be more strategic and policy oriented) to be different from the kind of data useful to the organisation responsible for the implementation at project level (that may be, interested into, for example, benchmarking its own project against similar ones and thus identify on the basis of such benchmark areas of improvement).
Section 5.3 below will introduce an in-depth assessment of these four performance areas.

### 4.7 The structure of the fieldwork

The initial plan was to apply our methodology, to the extent possible, on a certain number of typologies of projects to be investigated in order to analyse monitoring systems both on the front of ‘actions to people’ and ‘action supporting the systems’. The former are, by and large, activities meant to increase skills and thus employability of individuals (mostly training); the latter projects whose aim is to develop or to better the infrastructures (public employment services, the one-stop shops providing consulting and other services to ‘start ups’) engaged into making more effective the interactions between supply and demand of work. As evoked above, the pilot phase of fieldwork highlighted the necessity to concentrate as an ‘entry point’ for our analysis on Managing Authorities or other institutions which are pivotal in the implementation process, allowing reconstituting information channels below and above the latter. This has contributed to deflect the analysis from a primary sectoral approach in terms of typology of projects. We indeed came to encompass the monitoring arrangements underlying the entirety of the OP or the SPD chosen. However, in the cases where we focused on one OP, we took into account the criteria of project typology when selecting the OP. In general, we opted for the OP dealing more directly with professional training as we considered that the measures involved in this case have a higher degree of comparability than actions in support to systems which are necessarily very specific and adapted to the institutional context.

The project started with a pilot phase in Italy, Spain and England which was followed by an in-depth evaluation of monitoring arrangements and information systems in 7 remaining countries (i.e. Austria, Flanders, France, Germany, Greece, Hungary and Portugal). Although Flanders and England are not European Member States as such, for the purpose of our evaluation exercise we shall consider them as something coming close to a ‘country’ considering that our effort was aimed at taking into account the institutional, social and technical context where information systems and monitoring arrangements unfold.

The choice of England was due to the intention to simplify the scope of the analysis and, specifically, it was perceived advisable to focus on one National OP (Objective 3 England and Gibraltar) where we still have a regionalised articulation of the programme. The Department for Work and Pensions (DWP) acts both as the Managing Authority of the Objective 3 CSF and OP. It was the focus of our analysis, even if we considered the ramifications of the programme towards the regions and the co-financing organisations.

As far as Italy is concerned, we considered the Regions (three Regional OPs Objective 3) and their Managing Authorities as the focus of our analysis. However, it is – as we will better explain later – the Ministry of Labour (the MA for the Objective 3 CSF) which plays an important role in relation to the strategic decisions on the Regional OPs and the gathering and diffusion of the information needed to take such decisions. Thus, besides, the Regional MAs, we also considered the Ministry of Labour as an important observation point.
In Spain, the Managing Authority, for both the Objective 3 CSF and the Regional OPs, is the Unidad Administradora del Fondo Social Europeo (UAFSE) within the Ministry of Labour and Social Affairs. However we also analysed the role of the Regions (more specifically the Comunidad de Madrid) and the other Intermediate Bodies as participants to the information network (in particular the Coordinacion Escuelas Taller within the Servicio Publico de Empleo Estatal).

During the pilot phase we fine-tuned our interview guide and subsequently expanded our fieldwork to the remaining countries. In Austria, our research methodology has focused on the implementation of the Federal SPD Objective 3. Interviews have been held with the MA of ESF interventions in Austria, which is the Ministry for Economic Affairs and Labour (Bundesministerium für Wirtschaft und Arbeit, BMWA). Moreover, our fieldwork research has extensively investigated monitoring of this SPD with the main final beneficiary that carries out and monitors projects in the framework of this programme. This is the private firm Labour Market Service Austria (Arbeitsmarktservice Österreich) or AMS, which performs the functions of a public employment service21. In Flanders, we focused on the Objective 3 SPD and its associated Managing Authority (i.e. the ESF Agency). However, since each Priority is managed and supervised by partner institutions, the so called ‘regisseurs’, our analysis has also incorporated the partner institutions operating within the ESF Agency.

In France, we analysed the Objective 3 SPD as a whole considering both the National and Regional sections. We chose to focus on the case of the region Picardie to illustrate the monitoring process taking place at Regional level. In Germany, due to the division of programming at Federal and State level, we investigated the processes of monitoring that relate to Federal programming and the Objective 3 SPD as far as State programming is concerned. The entry levels for our analyses have been the BMAS (i.e. Bundesministerium für Arbeit und Soziales), that is the MA of the CSF and the Objective 3 SPD at the Federal level and the State Ministry for Employment, Health and Social Affairs of North Rhein – Westfalia (Nordrhein-Westfalen) at the State level.

In Greece our research methodology has focused on the Objective 1 OP for Employment. Interviews have been held with the MA of this nationwide sectoral programme and with project providers pursuing projects and monitoring within the programme. Furthermore, we also interviewed staff at EYSEKT, a special unit established towards co-ordination and monitoring of ESF actions across Greece. Through our interviews with EYSEKT, we have also had exposure to the Regional situation of the ESF implementation, as this unit engages in formal and informal interactions with the MAs of Regional programmes. In Hungary, our methodology has focused on the HRD OP MA, an organisational unit of the Ministry of Employment and Labour (MoEL) which operated until July 1st 2006 as the Managing Authority of the Human Resource Development (HRD) OP. Finally, in Portugal our study focused on the National Education OP (PRODEP III) as its unit of analysis, taking as an entry point the Instituto de Gestao do Fundo Social Eropeu (IGFSE)22 which is the entity with National responsibility for the overall functioning of the ESF programme in Portugal. In this specific case, we deliberately departed from our objective to select the OP most directly related to professional training because preparatory work undertaken prior to fieldwork highlighted that the monitoring arrangement underlying the development of PRODEP was already aligned with future practices expected to be generalised in the future programming period. On this basis, the case of PRODEP was therefore judged to be more significant.

21 The Austrian constitution stipulates that the responsibility for labour market policy lies with the federal government and the BMWA; through the Law on Labour Market Service, the implementation of this policy has been commissioned to the AMS (p. 136, Europäischer Sozialfonds, Ziel 3 Österreich 2000-2006, Einheitliches Programmplanungsduokument).

22 IGFSE stands for Institute of Management of the European Social Fund.
In all cases our approach deliberately chose – as for the very principle of the ‘information agreement’ - to attempt a comprehensive picture of all the actors and of their cost – benefit perception of the monitoring systems. We then progressively focused on CSF (when there is one) and on one or a few OPs. In the last resort, the OP has been our privileged ‘unit of analysis’, in conformity with what we stated in the Inception Report. However, as we wanted to take into account institutional, social and technical factors within our approach, then a part of the formative context of our study has necessarily been a ‘country’ or something coming close to it (and we would define England and Flanders as such). Within this, the Managing Authority is one very significant institutional actor, though not the only one - for instance, in Spain regions are not the Managing Authority and yet they are very important actors in resource allocation as we will further develop below. Overall, the research process has led us to some evolution of our understanding of which unit of analysis is most fruitful to address the research questions. We see these framing and re-framing steps as an essential part of doing the research.

Our theoretical framework has been adapted to the ESF context and it has proved to be a powerful tool to account for the characteristics of the information systems/monitoring arrangements (IS / MA) under review but also to allow for the identification of the relationships (and possible tensions) amongst the different components of the socio-technical context that the framework describes.

The four performance areas of evaluation showed to add value to the self-assessment of the systems that organisations already do. However, evaluations tend to be relative to a certain context: users of the monitoring system may not evaluate critically the quality of an objectively poor arrangement because the expectations may be low (if the performance has been not positive for a long enough time), because the former have not been exposed to the reality of other countries / regions, or because they operate in an institutional framework that does not attribute to monitoring a significant role (because for instance there is no real scope for taking decisions by the actors whose choices could be supported by the monitoring information).

The structure of the research strategy proved to be useful in order to identify different processes against which there are different minimum indicators and distinct monitoring problems. Notwithstanding the robustness of the methodology, the fieldwork revealed that some of the information we were looking for was less easy to be collected than previously envisaged, for example in relation to costs; in addition, the days spent in the field were over our forecast. Also, we could not find a typology of projects aiming to develop the systems operating in the labour market that were carried out with similar processes in the countries we have examined. To the extent possible, we concentrated on training activities which are indeed the bulk of the ESF.
5 Validity of the information agreement theory

The purpose of this chapter is to use the concepts and performance areas (i.e. criteria) which we have previously elaborated to categorise information systems/monitoring arrangements and assess their quality. In particular, we will first outline the key patterns emerging from our fieldwork for each cell of the socio-technical grid; we will subsequently use the concepts and criteria extrapolated from our theoretical framework to analyse these patterns. Throughout this chapter, our overarching goal is to assess whether stronger information agreements lead to better performing information systems and monitoring arrangements. In other words, all things being equal, we expect that the stronger the information agreement within a single country, the higher its performance in terms of usefulness, reliability, flexibility and cost. Though contexts are not the same and strength and performance are qualitative rather than quantitative variables, we believe that each country can be said to be having a strong/weak information agreement and high/low performing information systems/monitoring arrangements accordingly.

5.1 The main patterns emerging from fieldwork for each of the socio-technical dimensions

This paragraph extrapolates some of the key findings of our fieldwork. As we will see it is not – by all means – a summary of the cases.

We will in fact try to understand for each component of the framework if there are patterns, and models around which the countries (and more specifically the programmes) we have considered can be aggregated. We will also see whether the emergence of a specific pattern rather than others, contributes to the development of the information agreement and the achievement of a certain performance.

An interesting, unexpected result of our research is that the position of a country within a certain dimension does not look necessarily consistent with the position of the same country within another socio-technical category. For instance, we have come across examples where decentralised information agreements run alongside a high-degree of centralisation in relation to ESF-related decisions, as well as examples where formal information agreements are coupled with informal information exchanges. By the same token, it is entirely possible that the delegation of power to actors that do not have the instruments to exercise these possibilities may de facto produce a recentralisation. In some situations, even if we do not have a misalignment between institutional and social factors, problems can still arise when solutions are outsourced to internal or even external actors without clear specifications of the results to be achieved.

The overall picture is a very dynamic one where different factors influence each other in a way that our methodology can unveil and render easier to govern and steer toward improvement.

5.1.1 Institutional structure

The institutional structure of the 10 countries that we have investigated is fairly diversified.
The aspect that we have dealt with the most is the greater or lesser extent to which (general or ESF related) decision-making power is shared among different actors at different institutional (or non institutional) levels. At the limit a country where all decisions rest on one organisation or one person may not need information or may not be in a position to enter any agreement with anybody. On the contrary a country where power is distributed amongst too many actors may experience an information agreement which is difficult to achieve or ineffective.

In theory the presence of various actors is guaranteed by the ‘regionalisation’ that the Structural Funds promote – to the point that structural funds programmes are established for regions that do not correspond to the existing institutional framework. ‘Multi-level governance’ is as a concept even more advanced than regionalisation; it is both an ongoing institutional trend that the EC takes in account to develop the regulations of Structural Funds and an overall goal that the same regulations seem to be willing to promote.

However, the actual level of decentralisation is very differentiated because – among other reasons a) regionalisation does not necessarily correspond to more decentralisation where, in fact, regions may act more or less centrally as opposed to sub-regional levels and b) even formal delegation of power to regions do not always account for the effective transfer of decision-making activities to regional bodies.

The analysis we have performed is about the degree of centralisation and decentralisation as well as the degree of power balance between Member States and Regions with regard to the implementation of ESF co-funded programmes. The assessments of the distribution of decision-making powers between States and Regions (central areas versus the periphery) are different, though they partially overlap. Our focus has been on the degree of regionalisation, though it is entirely plausible that Member Sates with strong regions may still have a high centralisation due to the centralistic behaviour of regions (towards other lower institutional levels, as well towards non institutional partners).

In this study we are also considering contexts which differ: we are considering eight Member States, but also two contexts (England, Flanders) that are not Member States and focusing on both National and Regional programmes that are positioned at different levels within the institutional layers.

Therefore it should be kept in mind that our conclusions are the result of a sample population which is not homogeneous (though such a diversification reflects the diversity of Member States).

Overall there are:

1. a group of countries where the setting is less regionalised: Hungary, Greece, Portugal;

2. France and Spain where the degree of regionalization (which is higher in Spain) does not correspond to the specific arrangement for management of ESF programming (the regions are not directly granted the function of Managing Authority and regional government bodies are appointed through elections);

3. a group of countries where the institutional context is more regionalised as is the case in Italy and Germany (though German Laender are – historically, institutionally and in most cases

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23 In fact Portugal has got two autonomous regions (Azores and Madeira) and the rest of them are only such for Eurostat statistical reasons.

24 Regionalisation is here defined as general and ESF specific empowerment of the bodies governing areas corresponding to the Eurostat “NUTS 2” definition.
geographically - different from regions) and Austria (where the delimitation of federal states follows the NUTSII system);

Lastly England and Flanders are special cases since they do not correspond to Member States. Although the English programme that we have studied entails a very strong Managing Authority which sets out national priorities to be enacted at the local level, the regional GOs function as delegated Managing Authorities having a wide range of options set out nationally. The Flemish programme seems more unitary with no discontinuities between centre and periphery.

Within the scope of our study, these distinctions are important because we will see that the transition from structure to process and, at the same time, from institutions to actors and then to technologies will change the positioning of the different cases we are studying. The purpose is to clarify how the different socio – technical components do interact and impact on each other and identify possible areas of intervention to improve the monitoring arrangements and systems within which they operate.

This reconstruction of formal decision-making lines will become interesting when compared to how they get transformed by social factors and how they interact with technological solutions meant to collect and provide information.

The overall picture of the distribution of the cases we have been considering along a line of centralisation versus decentralisation patterns is provided by the chart below. We considered the overall institutional framework – specifically the presence of regions as elected, autonomous governing bodies - the nature of the ESF programmes – each country having regional, national or both, and the assignment of functions to the Managing Authorities – to regions only, to central government (and various ministries) only, or to both. We also mention the specific programme we analyzed on which we have focused our analysis, even if the assessment of the degree of centralization refers to institutional framework and the overall ESF programmes in each country.
Table 5.1: Outlines of institutional structures

<table>
<thead>
<tr>
<th>MS</th>
<th>Overall Institutional Framework</th>
<th>ESF Programmes Managing Authorities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>National 1</td>
<td>Regional 1</td>
</tr>
<tr>
<td></td>
<td>Nationa l and Regional 1</td>
<td>Regiona l Only</td>
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<td></td>
<td>Nationa l Only</td>
<td>Regiona l</td>
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<tr>
<td></td>
<td>Regiona l</td>
<td>Mixed (National and Regional)</td>
</tr>
<tr>
<td>Austria</td>
<td>SPD OB 3</td>
<td>X</td>
</tr>
<tr>
<td>England</td>
<td>OB 3 England and Gibraltar</td>
<td>X</td>
</tr>
<tr>
<td>Flanders</td>
<td>SPD OB 3</td>
<td>X</td>
</tr>
<tr>
<td>France</td>
<td>SPD OB 3</td>
<td>X</td>
</tr>
<tr>
<td>Germany</td>
<td>SPD OB 3</td>
<td>X</td>
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<tr>
<td>Greece</td>
<td>OP Employment</td>
<td>X</td>
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<tr>
<td>Hungary</td>
<td>Human Resource Development OP</td>
<td>X</td>
</tr>
<tr>
<td>Italy</td>
<td>Piemonte, Emilia Romagna, Lazio, CSF</td>
<td>X</td>
</tr>
<tr>
<td>Portugal</td>
<td>PRODEP</td>
<td>X</td>
</tr>
<tr>
<td>Spain</td>
<td>Vocational Training Comunidad de Madrid</td>
<td>X</td>
</tr>
</tbody>
</table>

1 With regional offices appointed by the Member State.

2 A context has been considered regional when there is at this level an elected government body. For the purpose of this analysis we have considered “regions” areas corresponding to the Eurostat “NUTS 2” statistical definition.

3 England is not a Member State and therefore can not be compared to other cases. However for the purpose of the table we considered England as a “nation” because its government is the same of the MS.

4 Flanders is not a Member State and therefore can not be directly compared to the other cases. However for the purpose of the table we considered Flanders as a “region” because its government is not the one of the MS.

5 Italy has 1 National ESF Programme which feeds / serves the 14 Regional Programmes. In practice the programmes that are actively dealing with ESF execution are the Regional Programmes, so for the sake of simplification the Regional column has been checked in this table.

As we will see the formal institutional setting is transformed along the way by institutional interactions and human factors and yield – as far as monitoring arrangements are concerned – technological
outcomes that ultimately may be different from the ones we would have expected from looking at the initial institutional structure.

5.1.2 Institutional processes

The institutional processes are relevant to the evaluation of the information agreement because they reflect the nature and the intensity of the relationships among the various organisations identified by the above “institutional structure” as being involved in the implementation of the Structural Fund programmes. The assumptions here are that, by and large,

a) the more the interactions among these organisations, the more actors positioned across the institutional structure depend on each other to see ESF monitoring and implementation tasks to completion;

b) the more the interactions, the greater the demand for information sharing at all levels will be and thus the higher the probability that these actors will enter into an explicit or implicit agreement concerning the information to be shared and the mechanisms by which data are collected and delivered.

The need for these relationships to be substantial was reinforced by the so called partnership principle, introduced within the four basic principles with the reform of Structural Funds in 1988. However, not all countries have implemented the principle of partnership to the same extent. For some of them the principle is interpreted as an extra obligation within public administration, externally imposed by the European Union. For others, partnership has effectively become the opportunity to experiment in new forms of inter-institutional partnerships.

The analysis of the data we collected points to the presence of three groups of cases:

a) countries where both partnership and the number of public or non public institutions involved into the programmes are low. In France, for example, partnership mainly materialises through the interactions between the Central Ministry of Labour, and its regional representatives in the regions (DRTEFP). The role of Regional Councils is rather marginal. By the same token, in Spain, partnership ensues mainly from the fact that the UAFSE works jointly with the Monitoring Committees at the CSF and pluri-regional level and presides the regional Monitoring Committees together with the regional authorities;

b) cases where the number of parties involved is high when it comes to the high-level decision of overall programme design, approval, modification, mostly through the monitoring committees; these are, for instance, the cases of England, Germany, Hungary and Italy. In England, for example, there are various moments of partnership as the DWP is expected to work in partnership with the England PMC while the regional GOs are expected to work jointly with the RDAs and the regional committees; in Germany, both at the Land level, Regional and at National levels, a multiplicity of actors comprising different Ministries, Provinces, City Councils, various stakeholders other including trade unions, industry associations and non-governmental/non-profit organisations are involved; in Hungary, various institutional actors interact on the high level of programme design, approvals and modifications. In fact, the system can be described as one having centralised check-points, where for example, amending and adding categories of indicators can only take place through the National Development Agency.
Programme design has also been characterised by high-level interactions among four Ministries (MoEL, MoH, MoYSF, MoE) working in coordination with the MA, with the leading role of the MoEL in the planning process; in Italy, however, such a thick relationship does not normally go beyond the level of the Monitoring Committees and the day-by-day relationships on projects tend to be less frequent;

c) instances where not only there are interactions at political level, but also at operating levels where projects are effectively implemented and the exchange of information should be on a day-by-day basis. Austria and Greece are examples of this group, each for different reasons. In Austria, the information exchange that is considered to facilitate ESF monitoring reaches over and above the formal institutional processes. These processes are identified to have happened at the programming composition stage and then, during the period 2000-2006, to be rather frequent, mainly aiming at data validation. In Greece, the formal institutional framework in place for monitoring of the ESF for 2000-2006 has not addressed the full spectrum of exchanges needed to take place for monitoring. As a result, monitoring tasks are carried out through informal exchanges at the level of Structural Funds operations. Portugal is also part of this group with very strong operating interactions among partners both inside and outside the public administrations and the institutional setting. Finally, in Flanders, a large number of institutional partners contribute to the management of the Programme in both its strategic and operational management.

As said before the information agreement is supposed to become stronger as we go from the first to the last group of countries. It is also expected that interactions on a day-by-day basis will require agreements on information to be shared to be more frequently updated and adapted to new needs that can not be foreseen at the onset of the information agreement. As for the institutional structure, we will later see that settings that formally require intensive interactions may lose or amplify this character when we go from formal arrangements to socially-accepted configurations.

5.1.3 Institutional outcomes

Although the countries investigated share to a large degree the same tacit premises, the institutional outcomes deriving from such premises and their peculiar institutional settings warrant very few commonalities in this regard.

Once again and reiterating our expectation that a large enough number of actors – whose actions are needed in order to implement the programmes – and a significant enough partnership among them is a pre-requisite for the information agreement to happen, we can identify four possible cases:

1. countries with medium to strong decentralisation and where partnership is intense, as is the case in Austria, Germany. In these cases, either monitoring is facilitated on the basis of exchanges defined in formal terms (i.e. Germany) or informal exchanges come to complement formal information flows (i.e. Austria);

2. cases where rather strong delegation of power from central governments is not accompanied by frequent interactions among actors; this is, up to an extent, the case of Spain and Italy where partnership does not always materialise on day-by-day, project level;
3. instances where strong partnership co-exists with a rather centralised framework (e.g., Flanders, Portugal, and up to an extent England);

4. examples where neither decentralisation nor partnership is significant (Hungary, Greece) or where evidence is contrasted (France which is characterised by a relatively centralised institutional setting and a somewhat uneven application of the partnership principle).

A very preliminary analysis may lead us to think that in the first case as opposed to the last the demand for information sharing and for effective monitoring arrangements to be higher, with the second and the third group of countries flowing in a median situation.

5.1.4 Social structures

The social dimensions differ from institutions because we, here, introduce actors and the human perspective, that may reinforce or diverge from the institutional, formal layout.

The difference is, at the most basic level, produced by two elements: the institutional capabilities, the presence of the skills and of the instruments which are necessary to exercise some decision making; the broad political willingness to be in charge of policies that have been delegated and therefore to be accountable for the results that are to be achieved.

The interactions between formal arrangements and these two social elements create a very much differentiated landscape and contexts that seem to render the emergence of information agreements and performing monitoring arrangements more or less likely.

The possible situations are:

1. effective decision-making distribution and sharing follows formal configurations; in this instance IS based, institutional monitoring systems correspond, by and large, to the broader concept of monitoring arrangements and they will be of a scale and scope (as we will see in the next chapter) consistent with the number of formal actors activated by ESF processes and the frequency of their interactions. Germany, England and Flanders are notable examples of this, as well as France and Portugal;

2. cases where informal arrangements create unexpected opportunities for the emergence of decision making and of partnerships that increase the need for information sharing and that, in fact, may generate monitoring arrangements that go beyond IS codified monitoring activities and that provide information essential for the steering of the programmes at micro or macro levels (Austria and Greece for example); this is also the case of Spain where the interactions between different actors and especially between regional and central level does strengthen the partnership principle and the role of the Regions even beyond the formal allocation of responsibilities;

3. a scenario where the combinations of institutional capabilities and real willingness make partnership and the principle of decentralisation to allocate concrete decisions and to shape the real information flows less strong. In Italy, for instance, the Regions that are formally in charge of the programmes prefer to grant the central government a role of coordination that seems to become, in many instances, even a function of indicating decisions at strategic levels and this is particularly true for defining the information to be collected (where the Ministry of Labour is
taking most of the initiative to identify the indicators) and for designing the information flow (where it is not even the Ministry of Labour but the Ministry of Economy which is in charge of the national system). In Hungary, regions had no choice of warranting coordination roles to central government, as NUTS 2 level regions in Hungary are only territorial-statistical units, without elected bodies. In the 2004-2006 programming period, regions had no coordination role in operational programme implementation. Moreover, the HRDOP, the subject of this analysis, was a national ESF programme, with national programme design, institutional and implementation structures. In this case, both formal arrangements on the one hand, and institutional capabilities, along with willingness, on the other, reside at the national level in a centralised framework;

The outcome can be different from the formal one we have reconstructed for each country.

Not always more formally regionalized contexts are the ones where regions seem to display more effective autonomy. The analysis shows how actual levels of “regionalisation” of decisions seem not to mirror perfectly different formal settings.

5.1.5 Social processes

Since monitoring is a relational concept that entails feedback to ensure that those actors which operate at the delivery level are on target (be it a physical, financial or procedural target), this section looks at how the monitoring processes are ‘arranged’ within the various countries with the caveat that analysing monitoring processes means essentially studying information flows between social actors which are spun into a web of institutional regulations.

The capability of actors (stakeholder organisations, executives and staff members) to talk among them, their propensity to work on projects and outside the boundary of their administration is an important qualifier of the formal relationships that – according to the analysis of the social processes – exist.

In our scheme, the description of the social processes is also the point where information generation and information flows are described. Information activities do, in fact, reflect the way formal institutions become real work groups and individuals and they give substance to the implementation processes that institutions are meant to serve.

The information flow charts that we are presenting in the appendix depict different arrangements. Among those, two groups of countries can be identified:

1. countries where the flows are mostly vertical and, as a consequence, there is limited access to data of peers; in this case the centre of the information flow tends to be the central government (whereas the European Commission itself is an end user of the process); this is the consequence of – as we have said before – a more or less concentrated decision making and a number of interactions amongst actors which is relatively small; England, France, Spain and Italy fit these categories. The diagram below depicts the typical information flow emerging in this situation.

2. in other situations, horizontal flows and downward feedbacks are experienced; this is either through the information systems (like in Flanders, Germany and Portugal) or informal, not IS codified monitoring arrangements like in Austria, Greece and Hungary.
As we anticipated, multidirectional monitoring arrangements seem to be more strongly associated with countries that are relatively less “regionalised”, that experience intense interactions amongst actors and that are relatively smaller. It seems that partnership is more important as a factor than regionalisation and that small size may facilitate the former and make less likely the latter. This is a hypothesis that should be proven through analyses that go beyond the scope of this project and we will come back to it later in this report.
5.1.6 Social outcomes

The sum of social structures (effectively empowered actors) and social processes (information flows) bring us on the edge of the technological domain.

The outcomes we have observed can be classified as:

1. cases where a top-down, decision-making structure and low level of interactions produce low-level involvement on the design of the information architecture and of its contents (e.g., Italy and Hungary may be considered as examples of this situation; to some extent Spain and France too, even though in France regions were widely consulted when the technical specifications were decided on and in England GO regions were involved in testing – out the application and provided some advice in terms of possible enhancements);

2. situations where such involvement is high for the design of the information architecture and its contents (e.g., Austria, Germany and Greece and to some extent Flanders and Portugal). Further differentiations within this group are given by the methodology used to collect actors’ preferences that may be expressed into a generic or specific even predefined form; and by the circumstance of the agreement to occur only when the monitoring arrangements start or even at a later stage when they are maintained, the implementation processes are running and needs for indicators and information flows may arise.

The two cases are not obviously strictly distinguished and it is likely that there is a continuum between the two situations. However, the closer the country is to the second pattern, the more likely – after having taken in consideration institutional and social factors – an information agreement will occur.

5.1.7 Technical structures

The data we collected show that if social results do not necessarily follow institutional arrangements, the same applies to the relationship between technological structures, processes and outcomes and social conditions.

A certain agreement may not be translated into a proper technological solution because most of the important actors’ preferences may not be followed through when it comes to Information Systems and Monitoring Arrangements choices. Problems with the outsourcing solution and the instructions given to the vendor, as well as shortcomings with the communication flows with the individual project providers may hinder a good information agreement.

Here there are three situations which are worth highlighting

1. cases where the quality of the information agreement is diluted by the concrete specifications and technological solutions. Hungary is clearly an example of this category, given the horizontal blockages of information sharing and flow among IBs and individual staff of the MA through job, project and funding scheme protocols within the UMIS. Furthermore, the concrete specification of the technological solution does not provide access for project providers to the UMIS. Italy is another example because of the long chain of delegation between the actor which is in charge of drafting the technical solutions (the company to whom the implementation has
been outsourced by Consip on behalf of the Ministry of the Economy) and the bodies in charge of the programmes (the regional managing authorities coordinated by the Ministry of Labour). Also, in France, the technical specifications represents a hindrance to the development of a quality information agreement; the same seems to hold for England although here it is more a matter of technical incompatibilities across the interface between the regional government offices and co-financing organisations);

2. cases where institutional or social settings that do not seem consistent with the objective of effective monitoring arrangements, get improved within the technological domain (e.g., Greece);

3. cases where the technical structure mirrors the institutional structure and obligations of actor organisations in monitoring (e.g., Austria, Spain, Flanders, Portugal and Germany)

Some countries display large information requirements (as a result of formal settings and explicit expectations from monitoring systems) and yet the delivery capability is low due to – amongst other factors – not clear enough feasibility analysis on the monitorability of the indicators.

In other cases, smaller demands are followed up by technical capabilities and relatively few indicators are monitored throughout the implementation process.

5.1.8 Technical processes

The technical processes are the second technological factor that we have considered. They mostly relate to the way different technological structures dialogue among them.

In short there may be cases where

1. effective communication between different systems makes the presence of more than one monitoring solution at different levels, an opportunity to foster the flexibility of the monitoring arrangements: (e.g., Austria, Germany, Italy);

2. discontinuities, deficiencies and fractures between different, theoretically functioning systems damage entirely or partially the information design (e.g., England, Greece, and to some extent Flanders and Spain);

3. situations where there are different standalone systems and so the information exchange between them is difficult (e.g., Hungary, France, Portugal).

The first situation theoretically suits more rather large countries/programmes: different technological solutions are an element of empowerment of different actors that then are capable to transfer data amongst them.

Arrangements that operate along the entire cycle of an ESF project can still be effective but they require accommodating for the requirements of different actors; they, in other words, require an information agreement of a scale and scope that may be more likely in a smaller context.
5.1.9 Technical outcomes

Different technical outcomes are the result of the complex process that we have described. Technical outcomes may transform certain formal institutional settings into certain social propensities towards an information agreement and, in turn, such common understandings on the shape of monitoring arrangements into technical systems.

At the end of such an itinerary we have arrangements that display different configurations and, as we will see, capabilities to deliver the objectives of monitoring systems.

In brief the results will be differentiated so that we will have:

1. arrangements that are mainly focused on making sure that few actors (mostly central governments) can control the most basic dimensions of the programmes (the financial advancement). Operating Programmes examined in countries such as France, Greece and Hungary fall within this category;

2. systems that provide some degree of strategically relevant information (for instance, number of beneficiaries with ample enough capabilities of segmentations) to few actors; Countries such as England, Austria, Spain, Germany (federal government systems) and Italy fall within this category;

3. cases where data relevant to the overall evaluation and steering of the programmes are provided to a rather large number of stakeholders; Flanders, the German state of North Rhein Westphalia and Portugal fall within this category.

Diversification of indicators (and reliability of the data), accessibility (and effective access) to databases are, as we will see, in the next chapter associated to the categorisation we have just described.

5.2 Categorisation of information systems/monitoring arrangements per typology of information agreement

In this section we categorise the countries we have investigated on the basis of the typology of information agreement (i.e. embedded v. hosted), their scale and scope. We subsequently attempt to extrapolate its strength as a composite or summative variable to assess the overall fitness of the information agreement.

Since we are conceiving of monitoring as a relational concept\(^{25}\), we believe it is important to focus on monitoring arrangements in general and information flows in particular to identify their embeddedness or disembeddedness. In other words, if these monitoring activities are embedded in the technology, work practices or even regulations, then the country under study is likely to feature an embedded information agreement and vice versa. Scale and scope, otherwise, will respectively be a function of the

\(^{25}\) See Chapters four (e.g., 4.3) and five (e.g., 5.1.5).
number of actors or layers having access into the key information system(s) and the breadth of categories of indicators being covered.

Strong information agreements are information agreements where the various actors who participate in the monitoring process gain benefits out of their information exchanges that outweigh their costs and the scale and scope of their information agreement(s) are large enough in relation to the overall monitoring purposes.

In the analysis that follows, we will depict cases of embedded and hosted information agreements whether they are embedded by a shared and common technology (technical), by common regulations (institutional) and/or by work practices that merge monitoring activities with everyday work (social).

Scale, similarly will be a matter of technology allowing access and inclusion (technical), established “rights to access” based on the hierarchy of power (institutional), but it can also depend on whether those who have access to core information systems, actually make use of them (social).

Scope, finally, will be a matter of technology not being able to track all types of activity of indicators (technology), of regulations not covering all types of indicators (institutional) and/or of work practices focusing only on one typology of indicators (e.g. financial).

5.2.1 Typologies of information agreement

In the countries we have analysed we have witnessed different typologies of information agreement. For example, cases such as Flanders, France, Germany, Portugal and Spain flaunt an embedded information agreement because their monitoring activities are embedded into the institutional, social and/or technical procedures. In Flanders, for instance, the monitoring process for Priorities 1 and 2 is of an embedded nature so much so that project managers (or promoters) are expected to sign an agreement (or we should say a formal information agreement) whereby they are allowed to enter data relative to their projects into CVS26 and simultaneously get feedback on a monthly, quarterly and yearly basis as to whether the information they have entered into CVS is correct (monthly feedback), whether they are on target (quarterly feedback) and whether they will be paid at the end of the annual review (yearly feedback). The information agreement, and the associated information flows, therefore, can be said to be embedded in the institutional practices (through the formal signature of an agreement), work processes (through monthly, quarterly and yearly feedback) and technologies (through the CVS system)27. By the same token, France has an embedded information agreement because, upon approval of the application for funding, project providers have to sign a convention whereby they are expected to send monitoring data to ‘Instructing Services’, that is ESF Services within the DRTFPE, which, in turn, enters these data into the ‘Application FSE’, a computerised system used for tracking ESF applications. Thus, the information agreement may be said to be embedded in the institutional practices (through formal conventions) and technologies (through the Application FSE). Germany, likewise, features an embedded information agreement considering that the Template Process acts as the data entry vehicle to the Federal and State electronic systems. Thus, the information agreement is embedded in the institutional procedures (through the formalised Template Process which has the status of official documentation), the work processes (through “templates” that contractors or project providers must fill out to report physical and financial data) and technologies (through the ESF Online, the information system used for Federal ESF programming). Similarly, in Portugal the information agreement is embedded because the information flows are, to a large degree, channelled through the SIIFSE

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26 CVS is used by the VDAB, the Flemish Employment Service which is one of the ESF Agency’s partner institutions.
27 In the next programming period, CVS should be extended to all Priorities.
information system. Hence, the information agreement is embedded in the work practices (through monthly declarations concerning financial and physical information) and technologies (through institutionalised information channels in general and the SIIFSE in particular)\(^{28}\). Spain also has an embedded information agreement which is based on codified and formalised procedures. The information agreement may be conceived of as embedded into work practices (through formal delivery of financial and physical data) and technologies (through a plethora of information systems such as Silet and SSU)\(^{29}\).

Other countries feature an information agreement which is partially embedded and partially disembedded and which, therefore, may be conceived of as hosted. For example, in Austria informal information flows relating to data validation and dissemination come in addition to the formal monitoring exchanges between the regional, state offices and the federal office of the AMS, and between the AMS federal office and the BMWA ESF section respectively\(^{30}\). England too has a hosted information agreement because its monitoring activities are only partially embedded within its institutional and work practices. LSC co-funded project providers are required to fill out an Individual Learner Record (ILR) for each participant in their classes/programmes. They also receive standardised feedback reports with pre-defined criteria. Thus, the information agreement is embedded within the institutional procedures (through formalised ILRs) and work practices (through standardised feedback reports). At the same time, it is also loosely coupled from them because of the possibility of carrying out analyses monitoring performance outside these formalised procedures (for example on placement or skill assessment). Greece, also, has a hosted information agreement featuring informal monitoring processes running in parallel with formal ones. Although there is a formal obligation to send monitoring data higher up the institutional echelons, parallel information exchanges take place between various institutional actors in a separate and more informal way. Due to the OPS technical limitations, monitoring data concerning project outputs are exchanged outside the formalised channels\(^{31}\). By the same token, Hungary has a hosted information agreement where upward-driven information flows are embedded in the institutional procedures while downward flows are loosely-coupled from them. On one hand, data flow vertically from the delivery level to the MA within the MoEL in a formalised fashion; on the other, feedback seems to be separate from the institutional procedures as project providers obtain feedback only through indirect ways (e.g. bulletins, web sites, etc.). Similarly, Italy has a hosted information agreement with elements of embeddedness and disembeddedness. Its monitoring arrangements are, to a degree, embedded in the codified practices because, for instance, the ‘agreement’ between Provinces and Providers is entirely based on the formal obligation of the latter to feed monitoring data upwards in order to receive funds. However, cases of monitoring arrangements sitting outside the formal procedures can also be pinpointed. For example, the analyses which monitor the performance on placement or skill assessment are realised by the very agencies that provided the training, thus creating ‘parallel’ monitoring endeavours which might be fraught with an episodic or irregular occurrence.

\(^{28}\) SIIFSE stands for Sistema Integrado do Fundo Social Europeu. It is an integrated information system for the management and monitoring of the ESF.

\(^{29}\) Silet and SSU (or Sistema de Seguimiento de la UAFSE) are used by some Regions and the ESF Objective 3 MA respectively.

\(^{30}\) The AMS is the main final beneficiary in the framework of the Objective 3 SPD. The BMWA ESF section is the Objective 3 SPD MA.

\(^{31}\) The OPS is the system used by the Ministry of Economy and Finance (MEF), the ESF Objective 1 MA in Greece.
5.2.2 Scale

The scale of the information agreement is another concept we have used to categorise the information systems and monitoring arrangements within the countries under investigation. As stated above, the scale of the information agreement depends on the number of individuals who have access in the information systems as different individuals represent different institutional layers and, therefore, different interests at stake.

The scale of the information agreement in Austria is large as the DataWarehousing (DWH) system used within the AMS for monitoring of the national labour policy (which the ESF forms an integral part of) can be accessed by federal, state and regional offices in relation to the measures and projects running within their remit. By the same token, the Access database used within the BMWA can be accessed by all members of staff. The BMWA has limited access into the production (live) system component parts (user modules and databases) of the DWH system. Likewise, Flanders have a large scale information agreement as project providers, ESF/VDAB staff, unemployed and external evaluators can all have access to the CVS. Obviously, different actors have different levels of access for inputting and extracting data. While a few members of staff at the VDAB unit at the ESF agency and the Provinces have unlimited access to CVS, project managers can only access files of their ‘clients’ but not change them. Similarly, Germany has a large scale information agreement considering that a large variety of actors are granted access into the database on the basis of ‘control rights’. Not all actors are granted the capability to access all data and perform changes to them. Final beneficiaries, for example, have access only to their own programmes while, at an even lower level, contractors can only access their projects. Overall, the system ensures that there is a unique access per project and template by the users having the corresponding access rights. Greece has a medium/large scale information agreement as a large variety of actors have access to the systems along the monitoring chain. However, access is highly formalised and based on unit and user categorisations. While final beneficiaries cannot access the OPS, MAs, who are granted access, cannot view data entered by other units. Hungary too has a large scale information agreement as the UMIS is an integrated system where the MA and the 5 IBs responsible for the HRD OP have all access to it. As a result the monitoring system can only be embedded in the overall institutional structure as the smallest common denominator of different organisational logics. By the same token, Portugal has a large scale information agreement as virtually all actors have access into SIIFSE. However, the four different types of users (IGFSE, MA, EAT and project providers) have different degrees of access: the MAs and EAT staff for PRODEP III have the greatest amount of access, staff at the IGFSE have less access to the database than do the MAs while project providers can access the database in order to complete their initial registration, as well as for the purposes of updating and monitoring previously or currently funded projects.

England, France, Italy and Spain, in contrast, have a small scale information agreement. In England, for example, there is a small scale information agreement because no single actor has access to all information. A handful of people have access to the Managing Information (MI) system at the DWP. Our study reveals that some people who have the possibility to access the system are either not aware of that fact or rely mainly on pre-defined reports. This, in turn, shows that granting access rights into an information system does not necessarily lead to such access if corporate culture in general and

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32 The IGFSE is the entity with national responsibility for the overall functioning of the ESF programme in Portugal. EAT stands for Estrutura de Apoio Técnico (Structure for Technical Assistance) and the EAT agencies are present at two levels (regional and national) to monitor/follow up on PRODEP III projects in their respective regions and assist the PRODEP III MA with its task of managing the PRODEP III programme at the national level.
monitoring arrangements in particular do not match the predicted institutional practices that ICTs allow for. France, similarly, has a relatively small scale information agreement as important actors in the monitoring process have no access into the Application FSE. Although, in principle, at the Sub-Directorate for ESF everyone has access into Application FSE, such actors as Intermediate Bodies and Delegated Paying Authorities are granted no access whatsoever. Italy, also, has a relatively small scale information agreement as very few individuals at the Ministry of Labour and the Ministry of the Economy are granted access into the national database. Spain, finally, has a relatively small scale information agreement as a limited number of users have access into the SSU system. No more than five people have unlimited access to the whole system while, in the single Regions, only three to four people are allowed to access the system in relation to their own responsibility areas.

5.2.3 Scope

In Austria the scope of the information agreement is large. There is an effective data segmentation which has contributed to appropriate programme monitoring and evaluation. Moreover, there is a satisfactory distinction between physical and financial indicators used by the BMWA and the AMS. For example, the indicators used by the BMWA comprise a table of 44 physical indicators fields ranging from the number of planned and actual participants to the number of benchmark projects within a measure. By the same token, the list of financial data is quite exhaustive as it includes the approved budgets, the expenses and funding approvals. Flanders, similarly, have a large scope information agreement which encompasses a large set of data which include input, output, result, impact and efficiency / effectiveness indicators, some of which associated with targets. Germany also has a large scope information agreement as programme inputs, programming activities, outputs and impacts are measured in great detail through the use of a rich set of indicators included in the templates. In Greece, the scope of the information agreement is also large: although the OPs do not facilitate the monitoring of project outputs, the information agreement rests on informal exchanges for the transfer of output monitoring data. Portugal too has a large scope information agreement which encompasses input, physical and financial indicators.

In contrast countries such as England, France, Hungary, Italy and Spain exhibit small to medium scope information agreements. For example, in England, the information agreement has a small scope as the system of indicators does not encompass data such as training hour that are useful for calculating unit costs and other efficiency measurement of training. In France, the information agreement has a small scope because there are no procedural indicators and only output physical indicators are covered. Financial indicators are set against targets only at project level. The system of indicators is said to be insufficient to ground strategic decisions and indicators providing a detailed account of the situation characterising the implementation of the programmes at regional level are missing. In Hungary, the information agreement has a medium/small scope because sub-measure level indicators are not streamlined. This results in misinterpretations of indicators by beneficiaries who often collect other than expected data, including false measurements of targets. Italy too has a small scope information agreement as, despite Monitweb capabilities, neither physical nor procedural data are being covered, the small scope deriving not from technical factors but rather from cultural reasons because monitoring is largely perceived as a way to control only financial flows. Finally, Spain has a small scope information agreement as the overall system of indicators lacks core indicators in terms of results and impacts.
5.2.4 Strength

The strength of the information agreement is, as anticipated in the methodology, an overall assessment and thus a function of the embeddedness/disembeddedness, scale and scope we have described so far.

The Austrian information agreement is strong due to the complementary mix of formal and informal exchanges taking place at various administrative levels which lead to data processing, validation and dissemination procedures conducive to efficient monitoring. The lack of opportunity costs concerning the use of the technology platform for monitoring of labour market policies has further contributed to the strengthening of the information agreement. In addition its large scale (i.e. number of actors/layers which exchange information) and scope (i.e. quality of the information being exchanged which has the right mix of physical and financial indicators and effective data segmentation) seem appropriate to the overarching monitoring goals.

Similarly, in Flanders the information agreement is strong as project managers and the ESF Agency correspondents (or régisseurs) are considered to be partners in the conduct of the ESF strategy, their monitoring arrangements being organised around their bilateral relations. Regular feedbacks and, in particular, monetary incentives to feed information upwards are factors that make the Flemish information agreement very strong. Also, the cost/benefit ratio can be deemed positive as, in the case of the CVS component of the Flemish monitoring arrangement, the wealth of information provided is accompanied with a highly flexible and uncomplicated use of the database, both to input and to extract data although the same cannot be said of the other systems used which are based on the Access application. The large number of actors who have access into CVS and who engage in a comprehensive exchange of information which includes input, output, result, impact, as well as efficiency/effectiveness indicators, makes sure that the scale and scope of the information agreement are in tune with the overall monitoring goals.

Germany also has a strong information agreement resting on a strong set of incentives at feeding information through the systems on the basis of the Template Process. If monitoring data are not entered in the ESF Online, then there will be no payment flows for project providers and contractors. The grant award decision serves to advise these organisations at the start that the fulfilment of tasks in the framework of monitoring is a formal responsibility undertaken by them, that data need to be put in orderly, and that this is tied with the flow of funding to them. The large variety of actors who are granted access into the information systems exchange a broad range of information flows which are virtually extended to all categories of indicators so as to ensure that the scale and scope of the information agreement are large enough in relation to the monitoring purposes.

Greece has a medium/strong information agreement where informal exchanges have created strong relations between the various institutional actors resting on well-established practices. While the scale of the information agreement is medium to large in ampler, its scope is large: although formal exchanges do not encompass project outputs, it turns out that, through informal exchanges, the various institutional actors can transfer such monitoring data. Yet, due to its informal nature, the information agreement itself has somehow been violated in numerous occasions: at times, for instance, MAs and the Ministry of Economy and Finance (MEF) have not reacted promptly to calls for indicator homogenisation coming from the EYSEKT, especially in relation to result and outcome indicators. Moreover, the cost/benefit ratio may be deemed negative due to the relatively low user-friendliness of

33 Since payments take place on a yearly basis, project managers might not have an appropriate incentive at checking they have inputted the correct information and seeing whether they are on target. To avoid this difficulty, for the next programming period, it is contemplated that payments will take place monthly.
and user satisfaction with OPS. All other systems (MS Office, Discoverer and the PAEP platform) fare considerably better among users.

Portugal as well has a strong information agreement where there is a positive ratio between costs/benefits associated with the use of SIIFSE because the benefits deriving from inputting information in the SIIFSE largely outweigh their opportunity costs. The large scale and scope, also, seem to be appropriate to the overall monitoring process: all actors at all levels have access into SIIFSE (i.e. large scale) and there is the possibility to either access data in their aggregate form or trace them to their individual sources thanks to the high degree of data segmentation which means that a large variety of institutional actors can act collectively to achieve joint monitoring goals (i.e. large scope).

In contrast, countries such as England, France, Hungary, Italy and Spain have a relatively weak information agreement. In England, the information agreement is weak/medium: not only is its scale/scoped relatively small due to the limited access into the MI system and the lack of key monitoring data. The collection of monitoring data at project closure may hinder the participation and willingness of co-funding organisations to provide ongoing monitoring data to the Regional GOs, thus undermining the overall information agreement even with respect to the new co-financing mechanism. Moreover, data input is very labour intensive at all levels, and especially at implementation levels. Data validation is also a very time consuming task. All these efforts do not compare favourably to the actual benefit deriving from the information produced.

In France, despite the ‘network’ spirit at the Regional level with exchanges of experience and good practice among the persons in charge of the ESF services, the information agreement seems to be weak between levels. Not only is the overall scale/scoped of the information agreement relatively small; at least at the beginning of the Programming Period (2000-2003), there was little shared understanding in regards to the definition of some indicators to be collected. Overall there is little direct utilisation of monitoring data for strategic purposes other than financial administration, the respect of procedures and the short-term objective of avoiding de-commitment. Activities related to controls are said to be overwhelming and disproportionate compared to the funds concerned, thus further undermining the information agreement. Also, the functioning of the Application FSE has made many corrective actions necessary which have turned out to be quite time- and human resource-consuming. The Application FSE now provides reliable information but too much effort is required to run the system smoothly and carry out the financial management of the Programme (i.e. negative cost/benefit ratio).

In Hungary, the information agreement is relatively weak: not only is the scope of the information agreement relatively small due to the lack of measure and sub-measure indicators; the too large a scale of access into the UMIS results into a situation where too many institutional actors, often monitoring different programmes, pursue conflicting interests which encroach upon their information agreement. Moreover, fragmented feedback processes and a negative cost/benefit ratio where the benefits deriving from the UMIS are largely compensated for by the time consuming efforts required to use very complicated and unfriendly module architectures are factors that further weaken the information agreement.

Similarly, Italy has a weak information agreement because of its small scale/scoped although this is mostly due to cultural/institutional rather than technical reasons. Moreover, the information flows are mostly unidirectional: no specific feedback is provided by the upper management to the lower management levels. Also, although on paper Italy is characterised by a Regionalised setting, it turns out that Regions behave more like actors operating in a centralised institutional setting. In terms of costs/benefits, it is worth stressing that there are low costs in terms of human resources/ time necessary
to feed information in the Monitweb system, as well as low benefits compared to the potential offered by the system.

Finally, Spain too has a relatively weak information agreement. Not only is its scale/scope relatively small, inputting and checking data is very time consuming, especially at the SPEE level where data are entered manually into the SSU. Also, the overall monitoring process places a large burden on both Regions and SPEE because they have to carefully check the data they have received, this burden hindering their incentive to collaborate\(^\text{34}\). The system is also characterised by an important ‘opportunity cost’ in the sense that only a small portion of information collected is actually sent upwards and ‘really’ used.

The following table outlines the key insights concerning the 10 countries we have analysed:

**Table 5.2: categories of information systems/monitoring arrangements in relation to information agreements**

<table>
<thead>
<tr>
<th>Country</th>
<th>Type of IA</th>
<th>Scale of IA</th>
<th>Scope of IA</th>
<th>Strength of IA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Hosted (formal information exchanges complemented with informal ones at various institutional levels)</td>
<td>Large scale (BMWA staff have all access into the Access database and AMS federal, state and regional bureaus have access into DWH although BMWA has limited access into the DWH system)</td>
<td>Large scope (good data segmentation, structure of physical and financial indicators conducive to efficient monitoring)</td>
<td>Strong (good mix of formal and informal exchanges, lack of opportunity costs in regards to the IT platform for monitoring labour market policies, appropriate scale/scope in relation to monitoring goals)</td>
</tr>
<tr>
<td>England</td>
<td>Hosted (formalised monitoring arrangements coupled with analyses of monitoring performance sitting outside the information systems)</td>
<td>Small scale (no access of data at higher levels)</td>
<td>Small scope (lack of key physical data like training hours)</td>
<td>Weak/Medium (limited access to the MI, lack of key monitoring data and low incentives due to request for monitoring data only at project closure, perceived negative cost-benefit ratio due to labour intensive data inputs and time consuming validations)</td>
</tr>
</tbody>
</table>

\(^\text{34}\) SPEE stands for Servicio Publico de Empleo Estatal. It collaborates with the Departments of the Ministry of Labour to manage the pluri-regional programmes.
<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
<th>Scale</th>
<th>Scope</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flanders</td>
<td>Embedded (monitoring process based on pre-existing information systems)</td>
<td>Large scale (project providers, ESF/VDAB staff, unemployed and external evaluators have access to the CVS which will be extended to all Priorities in 2007-2013)</td>
<td>Large scope (indicators which encompass input, output, result, impact and efficiency/effectiveness)</td>
<td>Strong (incentives to feed data into CVS, regular feedbacks, positive cost/benefit ratio, appropriate scale/scope in relation to monitoring goals)</td>
</tr>
<tr>
<td>France</td>
<td>Embedded (monitoring process pivoting around conventions/institutionalised procedures)</td>
<td>Small scale (important actors have no access into the database)</td>
<td>Small scope (insufficient set of indicators; only financial indicators are set against targets)</td>
<td>Weak (incomplete access to the database, limited understanding of indicators to be collected, limited feedback, overwhelming controlling activities, negative cost-/benefit ratio)</td>
</tr>
<tr>
<td>Germany</td>
<td>Embedded (Template process as formalised monitoring process, used at federal and state level)</td>
<td>Large scale (access into the databases based on ‘control rights’ granted to a variety of actors)</td>
<td>Large scope (all categories of indicators being tracked by the IS)</td>
<td>Strong (positive cost/benefit ratio due to incentives to feed data in the systems and appropriate scale/scope in relation to monitoring goals)</td>
</tr>
<tr>
<td>Greece</td>
<td>Hosted (informal monitoring processes running in parallel to formal processes)</td>
<td>Medium/Large scale (different IS access extended across monitoring chain)</td>
<td>Large scope (although OPS does not track physical indicators, informal exchanges compensate for this technical flaw)</td>
<td>Medium/Strong (strong informal relations appropriately hosted outside the institutional setting but benefits outweighed by opportunity costs associated with the use of OPS)</td>
</tr>
<tr>
<td>Hungary</td>
<td>Hosted (vertical flows are embedded in the institutional structure while horizontal flows are loosely-coupled with it)</td>
<td>Large scale (the MA and 5 IBs responsible for the HRD OP have all access to UMIS)</td>
<td>Medium/Small scope (sub-measure level indicators are not streamlined hence their quality is rather poor)</td>
<td>Weak (fragmented feedback, too large a scale of access into UMIS, benefits outweighed by opportunity costs in terms of lack of user friendliness of module architectures)</td>
</tr>
<tr>
<td>Italy</td>
<td>Hosted (mix of codified and non codified monitoring)</td>
<td>Small scale (few people are granted</td>
<td>Small scope (no tracking of physical and</td>
<td>Weak (limited access to Monitweb, no</td>
</tr>
<tr>
<td></td>
<td>procedures)</td>
<td>access into the national database)</td>
<td>procedural data despite Monitweb capabilities)</td>
<td>feedback, monitoring only focused on financial data, decision making not reflecting regionalised setting, low benefits compared to IT potential)</td>
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<tr>
<td><strong>Portugal</strong></td>
<td>Embedded (few ad hoc communications)</td>
<td>Large scale (all actors at all levels have access into SIIFSE)</td>
<td>Large scope (input, physical and financial indicators are covered)</td>
<td>Strong (benefits deriving from inputting information into SIIFSE outweigh costs, appropriate scale/scope in relation to monitoring objectives)</td>
</tr>
<tr>
<td><strong>Spain</strong></td>
<td>Embedded (codified monitoring processes)</td>
<td>Small scale (limited access into the SSU system)</td>
<td>Small scope (lack of results and impact indicators)</td>
<td>Weak (small scale/scope, overwhelming monitoring burden over Regions and SPEE which translates into lack of incentives and negative costs/benefits ratio)</td>
</tr>
</tbody>
</table>
5.3 The assessment of monitoring arrangements per performance criterion

We now go to the next methodological step which is the assessment of the performance of Information Systems / Monitoring Arrangements (IS/MA) along the four dimensions we described in the methodological session. These performance criteria are: the quality of information produced by the IS / MA under review, the reliability of the systems, the quality of the information architecture (its flexibility), and the overall costs (direct and indirect) associated with establishing and running monitoring systems.

5.3.1 Quality of the information

The quality of information produced by the IS / MA is a function of a number of factors: the relevance of the indicators system, the possibility to perform comparisons with other data, and between projects or regions, the frequency of update and release of information, etc. Finally, the modality of access to the databases is telling about the overall ‘usefulness’ of the data produced by the monitoring systems.

Relevance of the indicators systems

When asked about the general relevance of the indicators system in use in their country / region, respondents are generally found to be satisfied. For example, in the Austrian case, the two systems of indicators, the one used by the MA and the more extensive data structure used by the AMS are considered to be useful. There is also satisfaction with the indicators systems in Flanders. We found that the various actors interviewed in Portugal were to a lesser extent satisfied with the indicators due to the fact that they felt that some of the indicators were not useful. In Germany, the template process (Stammblattverfahren) is considered to be made of a comprehensive and inclusive set of indicators that contributes to the effectiveness of ESF interventions. The generally positive standpoints recorded raises the issue of the subjective vs. objective dimension of the (self)-assessment to which we will come back in more detail in section 6.2.

In fact, behind the generally positive overall assessment, a number of objective and specific difficulties are experienced with respect to the indicators system in the cases under review. One first problem is related to the size of the set of indicators adopted. In England, for example, there is an impression of ‘information overload’ with an amount of data going beyond the needs of policy actors, especially at lower implementation levels. In Greece, despite general contentment, duplicate (or even multiple) indicators and inconsistent measurement have been reported numerous times during fieldwork.

In a number of cases, there have been, or there are attempts to cut down the number of indicators in use as reported in Austria, Germany, France and Greece.

The lack of common standard is an issue experienced in Greece where the national ESF co-ordinator, EYSEKT has identified difficulties pertaining to the lack of common defaults or standards in the sets of indicators used by the different MAs in charge of ESF interventions across Greece. In practice, the systems of indicators, and even the measurement of indicators (see also below), are bound to differ across programmes. EYSEKT has recently tried to advance a case for harmonisation of indicators used for the next programming period.
Whether indicators are associated with targets, and whether indicators proposed in the Programme Complements are effectively measured is unevenly achieved across the cases under review, as illustrated above in Table 5.2.

For example, in Italy, the indicators system features a large number of physical indicators (hours, project duration i.e. hours and days, costs, as well as number of beneficiaries), financial indicators (committed and paid funds at the level of single project), and procedural indicators. However, the three types of indicators are generally not associated with targets, and some of them are not always consistently and systematically measured. Also, even though procedural indicators were initially perceived as an interesting innovation as they allow, in principle, to track projects’ advancement and spot potential problems at an early stage, evidence is lacking about the degree to which these have been effectively tracked.

Another inconvenient is related to the difficulty of indicators systems to grasp longer term effects, beyond direct output, in terms of result. In this case, monitoring data do not allow assessing single actions within Programmes, let alone the wider effects of Programmes. This is the case in France where the set of indicators has been severely purged and comprises only financial indicators and a few output physical indicators (indicators of the so-called ‘Common Minimum’ and a couple of ‘Specific’ Indicators). In England, the lack of productivity measurement was reported as a limitation. Also, the German case illustrates the lack of knowledge of programme’s impact at State level (in the case of North Rhine Westphalia). Likewise in the Spanish case, core indicators reflecting results and impacts are missing.

However, in some countries, effects are adequately measured suggesting that this is not intrinsically beyond the remit of a monitoring system. In Flanders, for example, a large set of data is provided for in the Ob.3 SPD comprising input, output, result, impact and even efficiency and effectiveness indicators, some of which associated with targets. These indicators are generally effectively measured.

Sometimes, despite their size, indicators systems fail to measure important phenomena such as the number of training hours. In England, the number of training hours is not tracked at individual levels (even if it is possible to have an average approximation) whereas in France there is no such indicator. In other cases, some indicators are considered not perfectly adapted to measures. In Austria, for example, it is envisaged to adopt a subset of indicators specifically suited to the coverage of schooling measures, distinct from those used in the case of adult training.

**Local, programme or specific action validity**

Often, indicators systems are only partially useful to manage the programme because they do not account for measures, sub-measures or local actions. In Hungary, it has been claimed that every 3rd indicator needs amendment as it does not account for measures properly. On the one hand, measure level indicators are "noisy", signifying a mismatch between local and programme level validity of information. At the core of the problem is the heterogeneous structure of the OP, where programme-level indicators describing macro-level, systemic actions become ungraspable at the measure-level as a result of the multiplication of heterogeneous impacts. Inversely, measure-level indicators cannot be aggregated in a way that would map out macro-level, policy-indicators for policy-makers. In France, the ‘type of action’ within measures was not tracked until 2003 due to unclear definitions and/or a lack of instructions. Following corrective actions, the information became available in 2005. However, indicators providing a detailed account of the situation characterising the implementation of the Programme at regional level are missing. There is no or little consideration at regional level for the
physical indicators collected, and an alternative IT system is generally used to carry out the financial management of the regional budget which does not comprise physical indicators.

In England, data have little local and/or programme pertinence. In particular, they do not provide important information such as the outcomes of the programme as they pertain to particular groups of individuals, and alternative sources of information are used (e.g. beneficiaries' surveys). In Spain, Regions do rarely utilise the SSU and rather rely on their own IT system, considered to be better tailored to their own local needs.

**Comparisons**

The usefulness of information released is often reduced by the difficulty to perform comparisons between regions or projects. For example, in Hungary, the lately developed progress module has not substantially improved the quality of information since it does not offer comparability among projects by their advancement and/or performance status.

Where comparisons are in principle possible, the opportunity is not always seized. In England, reports distributed by the Regional Government Offices to CFO and Project providers generally address whether targets initially set are being met, and it is in principle possible to have reports comparing CFO and Project providers with other CFO or Project providers that are rendered anonymous. However, this is rarely done, and there is no evidence of such comparisons realised on a cross regional basis. In Italy too, regional comparisons are technically feasible but rarely realised.

The situation is more favourable in Germany where data within the available system platform is found as facilitating benchmarking and the identification of best practice examples, as the system platform can communicate related figures and data.

**Frequency of update, delay in delivery**

The frequency of data update is often said to be satisfactory from a programming perspective. In general, physical indicators are updated once a year (for example in Italy, France), while financial data are made available more frequently (every three months in Italy, every four months in France, etc.). The opposite is true in the Spanish case where financial indicators are annually updated whereas physical indicators are updated every 6 months. In Hungary, the frequency of information release takes place every three months.

This periodicity formally enshrined may be put at risk by delays in the effective delivery of data. France, for instance, experienced delay in data delivery of physical indicators at the beginning of the programming period mainly due to the weight of administrative requirements (what is more, reliable physical indicators about the first years of the programming period were available only in 2005 – see below).

The timing of data collection (at which moment in a project lifetime) is problematic for example in England. Data is in principle collected at three stages in a project lifecycle, giving rise to three reports: an initial report, an interim report and a closing report. In practice, however, the interim report contains limited amount of information, and much of the information is gathered at the closing stage. This means that the information available is only partially pertinent and generally released with delay with respect to the strategic lifecycle of the Programme. On the face of it, in the Hungarian monitoring system,

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35 However, the AIR (2005) does stress that this imperfection will be removed in 2006 with the collection of interim data.
indicators (output, results, impact) have been designed to monitor the whole lifespan of projects. In the Spanish case, the SSU contains the information of the projects co-financed by the ESF gathered at the project start-up and at its end.

The use of monitoring data

The use which is effectively made of the information gathered allows differentiating between different categories of cases. First, monitoring data can be collected to simply comply with regulatory requirements (their publication in the AIR), as seems to be the case at ‘upper’ levels of implementation in England, for example.

There are also cases in which, monitoring data, besides serving to fulfil administrative requirements, are mostly used for the financial management of the programme (so as to avoid automatic de-commitment). In Spain, the SSU seems to be used essentially for payment requests, for example.

Monitoring data can be used both for financial management at macro level, and for the micro management of projects. This is the case for example in France, where financial indicators are used to fine tune the financial management of the programme and to take corrective actions to avoid automatic de-commitment (e.g. budget transfers between priorities or regions), but where the system in use, the Application FSE is also adapted to the management of single project files (even though it does not fully contain information related to controls or to payments). In Italy, the use of monitoring data is closely connected to the management of financial flows at national and regional levels, but also at project level. In Portugal too, monitoring data are used for the financial management of the Programme, and for project management purposes. For the Portuguese Managing Authority (MA) and the national ESF coordinating body the IGFSE, monitoring data in the form of financial and physical indicators are necessary for the good financial management of the PRODEP III programme and continual follow-up of individual project progress in terms of goals and milestones achieved.

In other cases, data collected have a higher strategic value, materialising at different levels of implementation. In Germany, the three templates used (the Project, Participant and Enterprise templates) are found to be conducive to effective policy-making for both programmes pursued by the federal government and those realised within the states by state and regional governments. Also, in Flanders, data produced by the monitoring arrangements are ‘useful’ at different levels. First, monitoring data – and related statistical elaborations– are examined by the Strategic Working Groups composing the Flemish Monitoring Committee (VMC). There, the link is made with the Flemish Employment policy. Thus monitoring data are not only used to adapt or revise SPD programming but also to influence policy decisions taken by the Flemish government. At the level of the ESF Agency, monitoring data – both financial and physical indicators – are crucial for the financial management of the programme (re. the objective of avoiding de-commitment, the certification of expenses before claims for reimbursements are forwarded to the European Commission), and for the regular monitoring and control (or ‘coaching’) of single projects. Finally, monitoring data are also useful to project managers who can know how they fare against targets set initially, on the occasion of the regular feedback they receive about data they inputted in the system.

The Hungarian case illustrates how difficult it is for the monitoring system to fulfil the expectations of the different actors involved in the monitoring process at different implementation levels. Indeed, the monitoring system seems to be fragmented in terms of the relevance of information for different sets of actors. At higher levels, the available indicators and their updating appear compatible with programme management and decision-making. However, at the level of the staff directly involved with
implementation of projects and monitoring, the indicators seem irrelevant for decision-making on project funding. In fact, due to the late development of the indicator progress module in the IT system, it is difficult to judge how compatible indicators are with programme managers' work. In these circumstances the tracking of the advancement of projects and the progress of indicators have been problematic up until lately. Overall, the indicators of the Hungarian monitoring system did not seem perfectly useful to manage the programme.
Access

The access to database varies widely from country to country, as illustrated in the table below.

Table 5.3: Accessibility and use of the national database

<table>
<thead>
<tr>
<th>European Commission Level</th>
<th>National Level</th>
<th>Sub-National Level</th>
<th>Project Selector Level</th>
<th>Project Provider Level</th>
<th>Total number of system users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>- X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1537</td>
</tr>
<tr>
<td>Belgium (Flanders)</td>
<td>n/a X</td>
<td>O</td>
<td>X</td>
<td>X</td>
<td>1000</td>
</tr>
<tr>
<td>England</td>
<td>- X</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>France</td>
<td>- X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Germany</td>
<td>- X</td>
<td>O38</td>
<td>O</td>
<td>O</td>
<td>2,35039</td>
</tr>
<tr>
<td>Greece</td>
<td>- X40</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>1,56841</td>
</tr>
<tr>
<td>Hungary</td>
<td>- X</td>
<td>-</td>
<td>O</td>
<td>-</td>
<td>3,500</td>
</tr>
<tr>
<td>Italy</td>
<td>- X</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>3542</td>
</tr>
<tr>
<td>Portugal</td>
<td>- O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>17,30843</td>
</tr>
<tr>
<td>Spain</td>
<td>X O</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>20</td>
</tr>
</tbody>
</table>

**KEY**

<table>
<thead>
<tr>
<th>X</th>
<th>Access to the entire national database</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>Partial access to the national database</td>
</tr>
<tr>
<td>-</td>
<td>No access to the national database</td>
</tr>
<tr>
<td>n/a</td>
<td>Not applicable in this case</td>
</tr>
</tbody>
</table>

36 We refer here to official access (number of passwords) unless otherwise specified.
37 This compares with the DWH system used by AMS to monitor the national labour policy structure as a whole: the number of users of the DWH system, which employs a user access classification scheme, is estimated to be beyond 1,500 users.
38 Here an O is used to mean “Partial access to the national database” because at the sub-national level in Germany the State (Lander) level only has partial access to ESF-Online and not to the entire national database.
39 Figures refer to the ESF-Online (Federal System): There are about 50 users of the Finance Module and about 2,300 users of the Template Process module at federal and state level (taken together). Note that in the ABBA/BISAM State System in Nordrhein-Westphalia: 160 registered and 140 active users of BISAM and 3000 users with access to the ABBA system.
40 In Greece Access at the National level is done by the Ministry of Economy and Finance, while the Managing Authority for OP Employment only has partial access to the OPS (and this for OP Employment only).
41 In Greece there are 1568 OPS users nationwide (of which 1421 are civil servants working on the Structural Funds, 147 work on the Cohesion Fund and 44 work on OP Employment).
42 In Italy there are approximately 35 people with access to the National Database. Approximately 5 users with full access to the system and 30 users with partial access.
43 17,308 total users of the SIIFSE system for the PRODEP III programme (of which 372 are at the Manager level, 14,330 are collective beneficiaries and 2,606 are single beneficiaries).
In five cases, a large number of actors at different levels have access to, and effectively use the national database frequently: Flanders (around 1,000 people at the VDAB and ESF Agency), Hungary (approximately 3,500, is estimated to have regular recourse to the database), Greece, Portugal (where there is more than 17,000 users of the SIIFSE system for the PRODEP III programme comprising programme managers, collective beneficiaries and single beneficiaries) and Germany.

Contrary to the Flemish, German and Portuguese cases, project providers do not have access to the national database in Hungary and Greece.

In all other cases, access is generally limited to generally less than 20 regular users (even if number of password released tend to be higher).

It has to be said that the table 5.3 shows the number of passwords released, whereas the number of users may be different (because some of the passwords may not be used or, on the contrary, some of them may – de fact – be shared by more than one individual).

It is worth stressing that limited access to databases has rarely a predominant technical component, as testified by the cases where a large number of passwords have been distributed. In Spain, for example, access to the SSU is flexible in that it can be accessed via the Internet or an Extranet from as many workstations as deemed necessary. The low number of users who do actually access the system has therefore no technical grounds but is rather embedded in social practices.

5.3.2 Reliability of the systems

Size and frequency of errors

Errors directly attributable to the technical features of the systems under review are not deemed to be overly significant. In Austria, for example, the technology platform used for monitoring of the national labour market policy and ESF structure (comprising the system employed by the MA housed at the Federal Computing Centre of the Austrian government and the DWH system used by AMS) is judged as being advanced and reliable. The same goes in Flanders, Italy, Portugal and also in Germany where ESF-Online, the ESF-dedicated database system developed by BMAS on the basis of the Template Process, is considered to be very reliable.

Some minor difficulties have been detected. For example, even if in Greece, there have been no major issues reported with the query software developed for use of the OPS (ERGORAMA) database, Discoverer, the OPS has one important shortcoming. Although it cannot perform summation, when this is nevertheless attempted, no flag warns users on the basis of its unit indicator data. In general, error sizes in the OPS are thought of as manageable and, overall, it is considered to be a reliable system, like the PAEP system used by OAED.
Also, in France, our fieldwork found evidence of the difficulties in thoroughly tracking payments at regional level, with the possibility of slight overestimation. This is one reason prompting regional ESF Services to rely on alternative IT systems for everyday (financial) management (the other reason being inflexibility in the utilisation of Application FSE, see below).

Overall, the technical dimension of system reliability is hardly reported to be a cause of serious difficulty in the cases under review. There are generally backup servers and recovery systems that make data safe.

**Clear and shared definition of indicators**

Factors that jeopardize data accuracy are more frequently related to the ill-definition of indicators. As hinted above, in Greece, there is a lack of common defaults or standards in indicator sets and measurement used across the different MAs. In practice, not only the set of indicators, but also their measurements differ across programmes. In France, imprecise definitions of physical indicators (concerning in particular the input of the ‘Type of Action’ necessary to infer the indicators of the Common Minimum, but also of other indicators such as the age of respondents, or the definition of beneficiaries) have imperilled the reliability of physical data over the first three years of the programming period. The situation has improved following a plan for action engaged in 2005 which consisted in keeping indicators that are effectively measurable (output indicators only), catching up with the provision of missing indicators (through statistical extrapolation), and providing guidance to ensure that the interpretation of some indicators’ definitions and the way to input data were correct. Moreover, there has been a complete securitisation of the procedures followed to input financial indicators following the plan adopted in response to the financial correction.

**Verification – validation**

Verification and validation of data take place at different levels, and according to different modalities (manual vs. automatic). The different validation processes are generally effective, but they involve more or less burdensome procedures and practices, i.e. that they are carried out more or less efficiently.

In England, the first validation steps are carried out at the level of Co-Financing Organisations which involve relationships with project providers on the occasion of initial, interim and closing reports. These reports are generally sent via floppy disks to the Regional Government Offices where they are validated mainly manually before being uploaded into the Regional GO’s database. A project manager at the Regional GO realises a complete data verification mostly on the basis of the closing reports through a lengthy process described as being 20% automated and 80% manually done.

In Flanders, the possibility to have incorrect data inputted in the systems (CVS or Access) is limited by the frequent feedbacks provided by ‘Priority managers’ at the ESF Agency to project providers, the numerous qualitative controls realised (e.g. monitoring visits) and the procedures followed to certify expenses. In the case of CVS, the system in use for Priorities 1&2, there is an automatic system flagging inconsistencies (Qwaco). For the other priorities, this is done manually, on the basis of Excel extractions.

In Germany, both the ESF On-line used by BMAS at federal level and the ABBA/BISAM used at state level (in the case of NRW) contain in-built plausibility checks and other validation controls. Thus,

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44 Usually, project providers have their own management information system and software allowing them to statistically validate the data they send upward to the CFO. However, small providers are not expected to have their own system and input their data into the LSC system record by record.
errors are attributed almost exclusively to the human (user) factor. In cases when data are lost, it is up to the MA to put in a formal request to the implementation intermediary organisations (e.g. the Versorgungsämter or VAs) or project provider so that data are recovered.

The Hungarian information system offers automatic validations only in a limited area. It is possible to trace the validity of numerical data and the existence or absence of certain data. However, for written data and implementational differences in the number of objects the system only allows for manual validations by monitoring experts during their site visits every three months.

In Italy, the data validation process is mostly manually performed by the Managing Authority (through the process uploading / visualising / validating). There is some automatic verification but it only deals with the quality of projects (for example the allocation of a project ID). This is a feature implemented in the context of the Performance Reserve whose allocation depended, among other criteria, on it. At the Ministry of Economy, there is also the possibility to perform validation checks. However, physical and financial data are not fully integrated and cannot be automatically matched for validation purposes (there is no automated matching procedure).

In the Spanish case, it is the regions that have the main responsibility for verifying and checking data obtained from bodies operating at the delivery level. In turn, the SPEE (Coordination Escuelas Taller) checks the data (both physical and financial) received by regions before inserting them manually into the SSU. The validity of data thus depends essentially from manual validation of data. The discontinuities characterising the whole monitoring arrangement (see below) make the validation processes more vulnerable.

**Coverage of data**

The coverage of data permitted by the monitoring arrangements under review is one factor contributing to the overall reliability of data produced. In England, coverage of data is imperfect in the sense that most of the information is actually collected at projects’ closure, despite the information being available in the CFOs’ systems all along the project life. This is because, in fact, Regional Government Offices do not require such information until the end of projects. Similarly, in France, the ‘Application FSE’ clearly accounts for only a small share of data available to project providers. What is more, information about physical indicators is not asked all at once at the beginning of the project, but it is subsequently added up on the occasion of the first reports, making the collection process more vulnerable. Coverage is also a problem in the sense that Intermediate organisations do not have systematic access to the database, with the result that there is no reliable documentation concerning ‘conventions of 2nd degree’, i.e., signed between Intermediate organisations and project providers.

On the contrary, in Flanders, the coverage of data in the case of Priorities 1&2 is extremely extensive as it draws upon a primary source of information based on the individual characteristics of unemployed people benefiting from projects funded by the Ob.3 SPD. For the other priorities, the same type of information is gathered from project managers, but there is no such large pool of underlying individual data as in the case of Priorities 1&2.

Also, both the Hungarian UMIS and Portuguese SIIFSE information systems are standalone, integrated systems that cover the total tendering procedures, i.e., from the moment of placing a tender by beneficiaries, up to the implementation and finalisation of projects.
Monitoring performance of systems

In general, our fieldwork found that few countries endeavoured to “monitor” the performance of their monitoring systems. In France, following difficulties in the first years of the programming period, a system presented under the form of a scoreboard to monitor the rate of input of indicators (by regions) was established in 2005. As to Italian regions, they have established a body called ‘Tecnostruttura’, i.e., a platform where regions carry out peer evaluation and exchange information and experience. Finally, in Hungary, formal evaluation of system performance has not taken place, but there are procedures to monitor system performance by state agencies (State Audit Office, Government Control Office).

5.3.3 Quality of information architecture/flexibility

Segmentation of data, by type of policies, projects, beneficiaries

The capacity of an information system to segment data according to various and changeable criteria is one factor reflecting the flexibility of a system. In Hungary, data is generally grouped according to measures, but it is also possible to sort information by organisations or regions. Information flow is not determined top-down vertically; i.e. higher institutional levels can view available project level data as well as higher level aggregated data. At the same time, bottom-up information flow takes place through hosted procedures where providers receive information indirectly through external sources (bulletin, website). The horizontal segmentation of data is even more revealing and it is based on job, project and funding scheme protocols. In other words, access to data is limited horizontally according to project types, job authorizations and funding programmes. In Flanders too, the facts that, in the case of Priorities 1&2, a large array of information is available at individual (and not only project) level and that at any moment, aggregated figures can be disaggregated down at project, and individual (participants) level, enable to manipulate data and present them along different dimensions and criteria.

On, the contrary, in France, following the removal of most of the so called ‘Specific indicators’ from the indicators system, indicators produced are homogenous across Priorities and Measures. The advantage is that indicators can be aggregated and then, in principle, broken down by actions within Measures or by regions. Overall, however, there is no tailoring of information to specific needs. In Spain, insufficient tailoring to specific regional needs, for example, pushes regions (but also organisms that fall under the SPEE umbrella as in our case) to resort to alternative IT.

In England, a ‘super user’ at Regional GO can produce ad hoc reports about his/her own regions, but generally, it is preferred to make use of pre-defined reports, which by definition are not tailored to specific actors. These offer the advantages of being released with regularity and of allowing comparability over time.

System integration and reactive ability

The reactive ability of the systems under review can be put at risk by different factors, and to different degrees. The Hungarian, for example, independently created, standalone system, UMIS seems to respond to new demands and changes slowly. As an integrated system of five OPs, it contains a lot of data and involves many institutions across different levels. Consequently, it operates on the principle of the smallest common denominator that creates redundancies in working steps, slows down and makes the monitoring process rather inflexible. On higher institutional levels, this inflexibility is not experienced but at the implementation level the technical system is seen incompatible with the institutional framework. Furthermore, due to centralised checkpoints to amend or add data (through the
NDA) as well as time-consuming data input, the institutional system cannot provide adequately prompt responses to new challenges and changes in the developmental socio-economic field.

In other systems, a good level of integration of the IS system is achieved, yet, the reactive ability is not enhanced for other institutional or administrative reasons. This is the case in Austria where both the DWH information systems and the database system used by the MA are fully integrated upon robust IS platforms. The two systems differ with respect to their reactive ability, however. The MA database system offers features such as the introduction of new fields in the database by the users themselves, which is not the case for the DWH IS. Anyway, in both cases, this requires re-programming, related modifications, and training for any adaptation deemed necessary. The same is true in the Greek case, in all sections comprising the programme’s technology platform, namely the OPS/Discoverer section, PAEP database system, and MS Office tools used at the desktop. In Germany, the reactive ability of the two systems reviewed is judged as medium. While some system adaptation is feasible through user interaction with the system, programming, through public procurement for ESF-Online and through an IT support contract with a company in Düsseldorf for ABBA/BISAM is required to facilitate larger-scale alterations.

Overall, in the systems reviewed, there is no or little possibility to adapt the indicators system, or if possible, the opportunity is not exploited. For example, in England several interviewees signalled that the evolution of the economy and labour market may have changed during the programming period some of the priorities and of the information required and yet no change of indicators did take place in order to take in account such changes: this may in fact due more to the limitation of data in the IS used (i.e. there are no individual records) than to changes into the choice of indicators. In Italy, it is technically possible and administratively easy to introduce new indicators but this is made difficult because the elementary information actually contained in the database is insufficient. In the Spanish case, it is not possible to introduce new indicators in the indicators system or to revise the latter. Greece is the one case, where indicators have been added after the programme start according to Programme and projects needs.

Discontinuities in the information architecture

Discontinuities in the information architecture may be a cause of inflexibility. Many such discontinuities have been identified in the different cases under review which go from an absence of network environment to an absence of communications between systems. In the Austrian case, for example, the only interface between the two main systems is the use of Excel sheets between users. The data query software, COGNOS, facilitates this data exchange but overall, interoperability is low. Similarly, there is low interoperability between the three systems composing the Greek technology platform that supports implementation and monitoring of OP Employment which are standalone and of diverse technology specifications.

Even in the case of the Flemish system, despite its overall good degree of flexibility, there is an important discontinuity between the first two priorities monitored through CVS and the other priorities, which use a system based on the Access software. An overall simultaneous access to the whole set of projects co-financed by the programme at once is in fact not possible. For different reasons, the same is true in France, where, there is no point from which the different parts of the whole database (national and regional databases) can be accessed simultaneously.

A more entrenched discontinuity characterises the German stand-alone system ESF-Online which is not connected to the state government systems. Data are passed on Excel files to the ISG and BMAS. In England too, the different systems forming part of the monitoring arrangement pertaining to the Ob.3
SPD do not always communicate between them. For example, the CFO systems do not have an interface with the Regional GO systems while project providers have a variety of systems which do communicate with the CFO. The use of the Internet is planned to allow communication between CFO and Regional GO systems. Finally, in Spain, SILET (the system used by some regions in connection with the programme Escuelas Taller) and SSU cannot communicate between them, so data must necessarily be inserted manually into SSU. The lack of compatible interfaces makes it difficult to centralise data coming from different sources.

In this respect, the Italian arrangement distinguishes itself by enhanced communication possibilities between the different systems at work. Indeed, Monitweb, the web based integrated system run at national level, and the distinct regional IT systems are able to ‘talk’ together thanks to common data protocols. In addition, a large variety of channels for exchange exist beside Monitweb between Provinces and Regions, for example, taking the form of manual data transmission or paper-based exchanges. Thus, no major discontinuities are noted despite the important number of distinct systems contributing to the overall architecture. Also, the BISAM/ABBA database architecture deployed across NRW is an integrated communications and data warehousing platform, where all organisations that participate in the implementation of ESF actions are interconnected. The only feature missing is the extension of this networking environment to project delivery organisations (planned in the new programming period).

Integration with existing information system

The Flemish example is a case in point illustrating how ESF monitoring is developed on the basis of a pre-existing monitoring system, that of the VDAB, the Flemish Employment Service used for Priorities 1&2. A host of advantages derives from the fact that ESF monitoring can draw on a large pool of elementary information made available by the VDAB system (for example the possibility to classify information according to different categories, ESF-specific or proper to the Flemish policy). We also found one example of integration with existing IS at regional level in Germany, where ESF monitoring in NRW is part of a wider monitoring platform, the ABBA/BISAM system developed by the state government to support the wider labour market policy monitoring and implementation within its territory.

When the IS/MA develops on a stand alone basis, there might nevertheless be a potential to establish bridges between the formal ESF monitoring systems and informal channels of data collection. The Italian case is an example where data collected outside the formal monitoring system (e.g. an add-on monitoring mechanism designed for the National OP ‘System Actions’, a system to track ‘placements’ after training, an initiative to evaluate the impact of ESF, and ‘Tecnostruttura’) could form the basis for a knowledge management system, provided these different initiatives are systematised and integrated. The French case, characterised by a marked difficulty to make the Application FSE ‘talk’ with other IT languages shows how this objective can come against communication difficulties.

Traceability: aggregation / disaggregation

Whether data, once aggregated can be disaggregated back to the original source data is a criterion discriminating between the different cases under review. In England, data traceability is not possible as no access to single learner data is possible from the CFO level onwards. Thus, MIS, the general
database at the DWP does not contain ILR. In France it is possible to access disaggregated data in the Application FSE, but accessing disaggregated data is no longer possible once data have been transferred on to Excel sheets, usually used to make data manipulations. As a result, there is an imperfect traceability of data.

Data traceability is very well developed and exploited in Flanders and in Portugal. It is also possible in Greece, in Hungary and in Italy.

Feedback to information provider

The possibility and the intensity of feedback loops between providers and receivers of information at different levels is also a criterion discriminating between the cases under review. In a first group of cases, feedback is tailored to its recipient. In Flanders, for all the Priorities, there are many occasions of feedbacks between the different levels through which the information passes: between project providers and ‘priority managers’ at the ESF Agency (mostly formally), but also between the Strategic Working Groups at the VMC and the ESF Agency. In Austria, formal and informal feedback loops are identified in the form of exchanges between the regional, state bureaus and the federal agency of the AMS, and between the federal AMS agency and the BMWA ESF section respectively. Other informal feedback exchanges between the MA and AMS state and regional bureaus may also take place. In Germany, monitoring of federal programmes relies heavily on interactions between final beneficiaries, project providers and the ISG.

In England, on the contrary, feedbacks about monitoring outcomes issued from the programme management’s upper levels down to the implementation levels take the form of reports organised along pre-defined criteria.

In a range of cases, feedbacks occur on the occasion of controls and validation procedures, for example in Greece and Hungary. In Greece, there is no system feature that would guarantee automatic top-down feedback for a project provider organisation such as the KPAs, either within the PAEP platform or in the operation of OPS and initiated at any higher level. During project implementation, providers receive monitoring feedback when discrepancies are identified between the project plan and actual implementation. Similarly, the Hungarian information system does not provide automatic top-down feedback for the project provider. During the lifespan of the project, providers receive monitoring feedback if gaps between the project plan and implementation are found. These pieces of feedback are tailored to the particular projects and project provider. In regular circumstances, however, project providers use hosted sources, such as password secured website to retrieve project tailored information, or news bulletin to get aggregate information. Also, in Germany, at state level there are no direct feedback relationships. Feedback takes place in the form of validation loops on data entry between, at the start, the VA and the project providers.

Finally, in Italy, or in France, there is little feedback provided from upper levels of management to actors at lower levels. The information is released mostly on the occasion of Monitoring Committees meetings and through Annual Reports.

User friendliness and flexibility of queries and ad hoc analyses

In some cases, data manipulation – imputing or extracting data, is difficult and time consuming. Also, cross tabulations are either difficult or simply not possible. In England manipulations of data along

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45 The system is heading towards data standardisation and common terminology which will enhance data traceability (re. Unique Reference Numbers).
different criteria is problematic. In France, the use of the Application FSE is not technically difficult, but it requires to strictly following a number of specific procedures which have not been sufficiently clarified at the beginning of the programming period. The use of the Application FSE is also characterised by many rigidities making it necessary to extract data onto excel sheets before being able to manipulate them. In Greece, (OPS) and in Hungary, the overall architecture of the system makes the manipulation of data cumbersome and time-consuming. In Spain too, it is difficult to perform statistical manipulations on the basis of extracted data. For example, there is little possibility to do cross-references when doing a data search.

On the contrary, in Flanders, the CVS component of the overall information system enables to realise versatile manipulations of data like cross tabulations, and easy access to input and extract data. Technically, this flexibility is in part made possible by the double structure of the CVS, made of an Internet version accessible by project providers, and an Intranet version (AMI) used within the VDAB / ESF Agency. Also, there is an intense collaboration between the Study Department of the VDAB and the ESF Agency. The former provides the latter with all sorts of statistical elaborations. Similarly, in Portugal, the database used for inputting and extracting data is based on a central server which has an on-line interface. This makes inputting and extracting data convenient for all users equipped with an Internet connection. The systems interface is relatively simple and user friendly and allows for crossing, aggregating or disaggregating data as needed. Currently however, the database could be qualified as being moderately flexible in that some users are more restricted than others in the types of searches they can run or the types of pre-defined modules they can view. In Italy too flexibility in terms of access to and use of existing information is very good. The system enables to do a wide range of statistical combinations, extensive elaborations and statistical enquiries as well as ad hoc aggregations. It is very simple to retrieve data from Datamart and transfer it into Excel, for example, while inputting data is not considered to be difficult. The problem has rather to do with a lack of empowerment of users who do not take advantage of these features.

5.3.4 Costs of monitoring systems

Opportunity cost

In a couple of cases, the ratio cost (to use the system) / benefit (usefulness of the information produced) is certainly positive. In Austria, there is no opportunity cost identified with the use of any part of the technology platform used for monitoring of labour market policies with regard to the SPD Ob3. Also, in the case of the CVS component of the Flemish monitoring arrangement, the wealth of information provided is accompanied with a highly flexible and uncomplicated use of the database, both to input and to extract data (however, the same cannot be said of the other system used, based on the Access application). Likewise, the time necessary to input information into the Portuguese system appears to be reasonable and in any event largely overshadowed by the benefits that these efforts and the SIIFSE system deliver to the whole of the Portuguese Managing Authority. This is a positive element, even if a complete assessment would have to take into account also the benefits accruing to other stakeholders as well.

Mitigated results are obtained in Hungary and Italy. In the former case, the computer programme of the monitoring system is not considered user friendly as the architecture of modules is too complicated. At the same time, the system is easy to learn and overall the monitoring system is seen to deliver benefits. In Italy, the information system featuring Monitweb at its centre is associated with relatively low cost in terms of human resources / time necessary to feed in, and extract data. However, the benefit derived
from its use (the overall usefulness of the information provided) appears to be low compared to the potential offered by the system, at least seen from a technical perspective.

Finally, in a last group of countries, the balance between cost and benefit is identified to be negative. In England, data input is very labour intensive at all levels, and especially at implementation levels. Data validation is also a very time consuming task (see above). All these efforts do not compare favourably to the actual benefit deriving from the information produced. Similarly, in Germany, the template process is considered too extensive due to the workload it generated, in particular through the use of the Project and Participant templates, for project providers. In France, the functioning of the Application FSE has made many corrective actions necessary which have turned out to be quite time- and human resource-consuming. It still requires effort to run the system smoothly. In Greece, the main opportunity cost factor is related to the low user-friendliness characterising the OPS. All other systems (MS Office, Discoverer and the PAEP platform) fare considerably better among users. Finally, in Spain, inputting and checking data is very time consuming, especially at the SPEE level where data are entered manually into the SSU. Also, the system is characterised by an important ‘opportunity cost’ in the sense that only a small portion of information collected is actually sent upwards and ‘really’ used.

Real costs of technologies
The figures on costs do not cover all countries and do not seem comparable. However, a rather large variation seems to exist. The capability to leverage on pre-existing system, as well as the clear definition of information requirements seem to be a factor in terms of making the cost profile of the IS systems more convenient. We believe that a more comprehensive assessment of costs may be carried out so that different member states may compare their relative positioning.

The following table outlines the key insights concerning the 10 cases we have analysed:

Table 5.4: Performance of information systems / monitoring arrangements in relation to four operational criteria.

<table>
<thead>
<tr>
<th>OP/ Criteria</th>
<th>Usefulness</th>
<th>Reliability</th>
<th>Flexibility</th>
<th>Cost</th>
<th>Overall assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Austria</strong></td>
<td>Usefulness of the 2 main indicator systems used, the one used by the MA and the more extensive data structure used by the AMS. Evaluation and plans to cut down the number of indicators. Large access to database.</td>
<td>Few to no errors, high degree of reliability, good formal support.</td>
<td>Effective segmentation of data. Formal and informal feedback loops. Good integration of the 2 systems within robust IT platforms. But absence of network environment between the two. Possibility to adapt the fields of the MA database, but administrative steps to take.</td>
<td>Little opportunity costs, good cost / benefit ratio.</td>
<td>+++</td>
</tr>
<tr>
<td><strong>England</strong></td>
<td>Perceived information overloads characterising the indicators system. Lack of important indicators. Data available only at project closure. Restricted access to the</td>
<td>Validation of data done in part manually. Imperfect data coverage.</td>
<td>Low degree of flexibility. No traceability of data. Feedback through pre-designed reports. Difficult manipulations of data (e.g. cross-tabulations). Problem of communication between the different systems used</td>
<td>Medium to high perceived opportunity cost.</td>
<td>+</td>
</tr>
<tr>
<td>Country</td>
<td>Description</td>
<td>Strengths</td>
<td>Weaknesses</td>
<td>Overall Performance</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>-----------</td>
<td>------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>Flanders</td>
<td>Comprehensive indicators system. Monitoring data effectively used at different levels of implementation, with high strategic relevance. Large access to the database managed by VDAB.</td>
<td>Extensive data coverage. Frequent feedbacks between project managers and ESF Agency personnel. Manual as well as automated checks ('Qwaco').</td>
<td>Very high degree of flexibility in the manipulation of CVS data (cross tabulation, perfect data traceability). Important discontinuity between the monitoring of Priorities 1&amp;2 (CVS) and the other priorities (ACCESS).</td>
<td>Very good cost / benefit ratio for the CVS, slightly less favourable for ACCESS. But good overall performance.</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>A streamed down indicators system serves mainly to carry out the financial management of the Programme, and follow single project files. Limited access to the database.</td>
<td>Initial difficulties affecting the reliability of (physical) data. Limited coverage of data. Improvement in the quality of data and monitoring of data input performance.</td>
<td>Limited flexibility in the manipulation of data contained in the Application FSE. Necessity to extract data on Excel files. Little to no feedback. No effective data traceability.</td>
<td>Time consuming procedures and efforts to correct the bias of the Application FSE.</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>Comprehensive set of indicators used in the template process (Stammblattverfahren) but associated workload. Plans to reduce the indicators.</td>
<td>Good overall reliability, modern database and network technologies, plausibility checks and other validation controls.</td>
<td>Absence of a network environment. Numerous institutional actors involved in monitoring process reduce overall adaptive capacity. Numerous interactions between final beneficiaries, project providers and ISG, but little feedback at state level.</td>
<td>Very time consuming procedures.</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>Lack of common default in indicators used across MAs.</td>
<td>Good reliability overall but serious shortcoming such as OPS impossibility to perform summation with no associated flag. Otherwise effective validation processes.</td>
<td>Different systems operating in a network environment but low interoperability. Little possibility for feedback. Traceability of data possible.</td>
<td>Cumbersome system to use overall.</td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>Problems for the indicators to account for measures properly. Low relevance of indicators for strategic management of the programme. Large access to the database.</td>
<td>Small but frequent errors. Limited automatic validations. Good coverage of data.</td>
<td>Appropriate segmentation of data vertically and horizontally. No automatic feedback. Traceability of data. Overall slow reactivity of the systems.</td>
<td>Time consuming data input, but system easy to learn.</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>Large number of physical financial and procedural indicators, not all effectively monitored. Use of monitoring data mainly for financial</td>
<td>Robust architecture. Validation procedures mostly manual.</td>
<td>Good interoperability thanks to common data protocols between Moniweb and regional systems. Good flexibility in the manipulation of data. No specific feedback.</td>
<td>Good technical features not necessarily exploited from a human perspective.</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Description</td>
<td>Management of Programme. Large access but not necessarily effective access.</td>
<td>Traceability of data possible.</td>
<td>Portugal Comprehensive set of indicators, data useful at different implementation levels. Wide access to the database. Different levels of data controls. Overall good reliability. Good data coverage. Flexibility of data segmentation. Traceability. Easy access and manipulation of data (web interface). System easy to use with a lot of information available.</td>
<td>Spain Limited usefulness of data collected. SSU mainly used for payment requests. Limited numbers of users access the database. Manual validation of data performed by regions. Regions’ own IT and SSU do not communicate between them. Low flexibility in the use of data (manipulation). Unfavourable cost / benefit ratio.</td>
</tr>
</tbody>
</table>
5.4 Testing the relationship between information agreement and performance

The question we are trying to answer is the very theoretical premise to our work: how strongly does the information agreement explain the performance of different monitoring arrangements? We believe that stronger information agreements lead to better performing information systems/monitoring arrangements because, all things being equal, the larger the number of actors/layers of actors exchanging information (i.e. scale), the more encompassing the monitoring arrangements will be so as to provide relevant information to a large variety of actors; by the same token, the larger the number of information items being tracked and exchanged (i.e. scope), the more cost-effective the information systems will be; similarly, the more appropriately embedded or disembedded the monitoring arrangements within their contexts, the more timely, segmented and tailored the information being exchanged will be.

The figure below is a representation of the findings we have been reporting in the previous two sections. On one axis we measure the strength of the agreement among parties in terms of information to be exchanged and the shapes of the information flow; on the other we have the appropriateness of the arrangements in terms of capability to provide relevant information, reliability of the data, flexibility of the architectures and costs.

**Figure 5.2: Relationship between Information Agreement and Performance Criteria**

<table>
<thead>
<tr>
<th>OP</th>
<th>Strength of IA</th>
<th>Overall assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Strong</td>
<td>+++</td>
</tr>
<tr>
<td>England</td>
<td>Weak/Medium</td>
<td>+</td>
</tr>
<tr>
<td>Flanders</td>
<td>Strong</td>
<td>+++++</td>
</tr>
<tr>
<td>France</td>
<td>Weak</td>
<td>+</td>
</tr>
<tr>
<td>Germany</td>
<td>Strong</td>
<td>++</td>
</tr>
<tr>
<td>Greece</td>
<td>Medium/Strong</td>
<td>++</td>
</tr>
<tr>
<td>Hungary</td>
<td>Weak</td>
<td>++</td>
</tr>
<tr>
<td>Italy</td>
<td>Weak</td>
<td>++</td>
</tr>
<tr>
<td>Portugal</td>
<td>Strong</td>
<td>+++</td>
</tr>
<tr>
<td>Spain</td>
<td>Weak</td>
<td>+</td>
</tr>
</tbody>
</table>

The figure shows a positive relationship between the two variables. However, this relationship is not linear. Interestingly, there are cases where similar performances correspond to information agreements of different types and strengths, and others where similar degrees of agreement yield different
performances. As anticipated, there is no solution universally adaptable to any context and as we saw in the institutional structure section, the cases reflect countries that are still very different. Moreover it does not seem that more information agreement is always the better: some cases suggest that beyond a certain level, beyond a critical number of actors involved or a number of interactions amongst them, the efficiency of the information seeking activity may decline.
6. Usability of methodology’s categories and criteria and adjustments necessary to use it to evaluate monitoring arrangements and improve them

This chapter discusses the usability of our methodology (i.e. our theoretical framework coupled with our concepts and performance criteria) to assess monitoring arrangements and improve them. It is structured in the following fashion: section 6.1 examines the efficacy of the socio-technical grid as an instrument to collect information; section 6.2 reviews the validity of our performance criteria to evaluate monitoring arrangements and information systems; section 6.3 reconsiders the concept of information agreement in regards to its typology (i.e. embedded vs. hosted), its scale and scope and suggests an overall conceptual model that can be followed to disentangle the research questions raised in the Call for Tender n. VT/2005/95 and structure our train of thought.

6.1 The efficacy of the socio-technical grid categories as an instrument to collect information

We believe that our socio-technical grid, when deployed with the right interview guide, allows collecting a large amount of information that goes well beyond indicators and technologies. In particular, it allows accounting for monitoring systems as social systems because it considers the context where these systems are implemented, as well as the work practices that various institutional actors perform whenever they engage in monitoring activities.

But what are the implications deriving from this different perspective on monitoring systems? First, if our socio-technical grid allows us to account for monitoring systems as social systems, then it is worth endeavouring to understand the socio-institutional context where monitoring occurs. It is our contention that the inter-institutional mismatch between European, National, Regional and local actors in terms of objectives and priorities produces the need for monitoring. Thus, monitoring itself becomes institutional glue whereby different categories of institutional actors become interpenetrated in their monitoring activities. Second and deeply intertwined with the first point, if monitoring is an inter-institutional glue, then a useful terminology to categorise information systems and monitoring arrangements pivots around the concept of information agreement conceived of as the mutual commitment between two or more institutional actors to sustain their ongoing monitoring activity. Third, and finally, if the monitoring process is a complex information process encompassing a large number of actors and types of information, it is important to distinguish between embedded and hosted information agreements to label different forms of complexity under different headings and understand their rationality. For instance, in our case studies we have witnessed forms of both embedded and hosted information agreements. Sometimes the information flows which characterise the monitoring process are truly and effectively embedded within the existing institutional structures, work processes and/or technologies. Sometimes they are partly embedded and partly disembedded by running in parallel in a formal and informal fashion. At times work practices and regulations call for a high degree of embeddedness; at times, the technologies in use trigger informal processes which sit outside the formal procedures. We believe that our language (or set of concepts) allows us to capture and describe these different ecologies of monitoring activities and make sense of them.

Obviously, the use of the socio-technical grid is not without uncertainties and, in the remainder of this section, we attempt to show some of the problems we have faced throughout the project.
We started our evaluation journey with a different grid outlining system functions, actors/participants and institutions. Yet the analysis of the first batch of information coming from our fieldwork made it necessary to reverse this angle and look at institutions first to describe the complex tangle of inter-institutional relationships where monitoring occurs. Although we have emphasised in several occasions that our socio-technical grid does not fragment the monitoring activity into separate and unrelated elements (e.g. the study of technical systems separated from the study of work processes; see section 4.5 in this regard), the very analysis of the interview data has made it often hard to locate the information we gathered within one box or the other. For instance, at times the distinction between institutional context and social structure was not clear. In other instances an overlap was found between technical processes which, instead, are social in nature. And at yet other times, we experienced problems with those tacit premises that inform the institutional processes so much so that we resorted to formal rules and regulations rather than explaining the principles that underline the institutional processes46.

However, one of the major hurdles that we have come across in this study pertains to the distinction between the evaluation and the descriptive tool. The main message which emerges from the report is that the socio-technical grid should be describing the institutional, social and technical reality characterising the monitoring activities in the various countries while the performance areas should be our evaluation tool grounded in the framework itself. Yet there is an exceptional amount of conceptual overlap between the two because, by definition, the socio-technical grid encompasses outcomes which are arguably the key factors that make up our performance criteria themselves. By the same token, the concepts of scale and scope do overlap with the performance areas themselves despite being critical for the understanding of the concept of information agreement, our main idea here being that large scale monitoring arrangements and large scope sets of indicators should strengthen the information agreement because of the larger number of actors being involved and types of information being exchanged in the monitoring activities47. Indeed, at times, we felt that the very concept of scale and scope could not be investigated thoroughly either because it was difficult to see the scale of every information agreement at every single institutional layer or because we could not get hold of the number of indicators being covered within a specific country.

During the study we have proposed and adopted a number of adjustments to the methodology and clarifications of the definitions used by the methodology’s tools. After the first phase we, in fact, revised the interview guide whose structure was supposed to correspond to the different areas of the socio technical grid and to the various performance criteria.

We believe that there is one main area of evolution of our methodological tools as far as the socio-technical grid is concerned, namely the distinction between the grid categories should be made clearer cut. One way to solve this problem is to clarify what ex post this final report has tried to do: institutional factors are meant to be formal, normally-written regulations that distribute on paper decision making and therefore identify most relevant actors; social components are about the transformations that formal lay outs go through when we consider the effective characteristics of the individuals and groups involved into the implementation of the programmes; likewise technological

46 Perhaps a more ethnographic methodology could better help understand the tacit premises that inform the inter-institutional processes. Obviously, this methodology requires spending a lot of time in the field well beyond our budget constraints.

47 Obviously, one needs to place this statement in context. As echoed in question three, the context of monitoring and its overarching purposes are extremely important variables to take into account to thoroughly understand the scale and scope of the information agreements.
activities may change the final result because of value added or subtracted by the contractors or the internal office in charge of translating social preferences into system flows and contents. Moreover, structure differs from processes because the former are static enumerations of stakeholders and of their features, whereas the latter are about the dynamics of the interactions between those actors.

One additional simplification could be to consider the aggregation of the “outcomes” category in the grid with the performances criteria. As stated above, there is an overlap between the two concepts, whereas in our scheme the socio-technical grid is about the independent variable (i.e. the information agreement) that impacts on the value of the dependent ones which are captured by the performance criteria.

Applying these ideas to our socio-technical grid would entail removing the outcome row (i.e. performance criteria) from it to have a more clear-cut distinction between descriptive and evaluation tools. This logic would imply that the information agreement (i.e. the independent variable) would mostly capture structures (i.e. number of layers and actors partaking into it) and ongoing processes (i.e. information exchanges and flows) while the dependent variable (i.e. the performance criteria) would focus on the institutional, social and technical outcomes emerging out of these information exchanges. The table below shows what the socio-technical grid would look like when stripped of its “outcomes”:

**Table 6.1: The socio-technical grid as a simple descriptive tool**

<table>
<thead>
<tr>
<th>Institutional Context</th>
<th>Actors/Participants</th>
<th>Technology (IT)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structure</strong></td>
<td>Rules, Regulations within national administrative structures. Overall setting in terms of CSF, national and regional OPs, etc. (Q3)</td>
<td>Stakeholders (i.e. public, private and not-for-profit organisations and their organigramme) (Q3)</td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td>Functions performed by institutional actors and tacit premises affecting their interactions (Note: the study of tacit premises requires ethnographic studies) (Q2)</td>
<td>Factors which shape the interaction between and among the various stakeholders. Opportunity costs and benefits deriving from information agreements. (Q1/Q2)</td>
</tr>
</tbody>
</table>

Ultimately, besides re-emphasising that there is no clear-cut distinction between the various elements of the socio-technical grid, we believe that qualitative methodologies like ours warrant a much deeper appreciation of the socio-cultural context where information systems are deployed and monitoring arrangements unfold so as to allow for a much richer set of concepts and criteria to categorise information systems and monitoring arrangements and assess their overall quality.
6.2 The validity of the performance criteria to evaluate monitoring arrangements

The performance criteria were rather effective in order to assess the overall performance of the IS / MA under review. The break down of the concept into four different dimensions (usefulness, reliability, flexibility of the architecture, costs) is appropriate to account for such a multi-faceted and complex notion as that of performance.

However, the research encountered two main difficulties.

The first has to do with the fact that the assessment risks being a matter of subjective appraisal. Indeed, the research for the case study is based on both desk research and interviews, and evidence is in part based on what are, in the last resort, personal perceptions. It is difficult to find indicators that can be disentangled from these individual perceptions. In fact, it might not even be an imperative to find indicators that are perfectly objective, as long as the overall assessment is capable of contextualising or qualifying the outcome, making explicit the relative context in which it takes place.

The second difficulty is related to the fact that the assessment is made in a comparative perspective. This might be a problem given the inevitably partially subjective dimension of the assessment, as per the argument above. For example, Member States that do have a more established tradition in monitoring may have higher expectations and consider more severely the same problem, which in a country with lower expectations, would perhaps tend to be neglected or underestimated. One possibility to deal with that difficulty would have been to perform absolute self-referential assessments. However, this has seemed to us to represent a very restricted perspective which would have not fully exploited the richness of the evidence we came to collect. Instead, we opted for a comparative dynamic and learning perspective to make the most of the vast variety of the systems under investigation. In fact, this is a necessity in order for us to reach our ultimate objective which is to identify patterns and relations between information agreements and performance criteria. Again, however, this implies that when comparisons are made, constant reference is made to the specific context in which the assessment takes place.

The researcher has proposed two possible solutions to these problems. The first is to further divide these dimensions into sub-criteria so as to make the measurement of performance as objective as possible. The division may isolate more precise matter upon which we call for the people in the field to express their opinion.

A proposed list of sub-criteria is proposed in the following table.

Table 6.2 Criteria and sub-criteria of performance

<table>
<thead>
<tr>
<th>Quality of the information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance of the indicators systems</td>
</tr>
<tr>
<td>Local, programme or specific action validity</td>
</tr>
<tr>
<td>Comparisons</td>
</tr>
<tr>
<td>Frequency of update, delay in delivery</td>
</tr>
<tr>
<td>The use of monitoring data</td>
</tr>
<tr>
<td>Access</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reliability of the systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size and frequency of errors</td>
</tr>
<tr>
<td>Clear and shared definition of indicators</td>
</tr>
</tbody>
</table>
The recourse to the above list of ‘sub-criteria’ is an attempt to assess performance as objectively as possible. Admittedly this adjustment has also got some drawbacks. Some of these sub-criteria are, for instance, intertwined.

For example, the ‘local validity of indicators’ contributes to the overall relevance of the information produced by the monitoring arrangement, and ‘the segmentation of data’ that tells about the flexibility of the system (and the information it produces), it is also, of course, a factor contributing to make the information more or less ‘useful’ to whoever uses the information. In addition, this exercise also produces another series of possible overlaps, this time between the concepts and criteria used for the performance assessment and those used to identify and qualify the nature of the information agreement at work in the cases reviewed. For example, the modality of access to the databases is an important component accounting for the scale of the information agreement, but it is also revealing about how ‘useful’ is the information produced from the perspective of the ‘Quality of information’ performance criterion.

We nevertheless found it useful to go down to a fairly disaggregated level of criteria so as to account for much differentiated situations in the different cases under review. What is important is that sub-criteria should be not correlated when they belong to different categories of main criteria – and this seems indeed to be the case.

A second way to obtain performance criteria that can be measured in a more objective and comparable way is to identify certain specific tests (like the number of passwords and of concrete accesses, the existence of feedback and horizontal flows) that are normally associated with higher or lower performance.

### 6.3 The theory chain and the information agreement dimensions: typology, scale and scope

If the socio-technical grid becomes a two-by-three matrix as depicted in section 6.1, then the information agreement would only capture structures and ongoing processes that enable and sustain monitoring arrangements in general and information flows in particular.
Conceptually, the information agreement should describe whether the monitoring arrangements are appropriately embedded or disembedded from their contexts so that the benefits deriving from the use of technologies and, as a side effect, the information exchanges outweigh the costs and whether its scale (i.e. number of institutional layers/actors) and scope (i.e. typology of information being exchanged) are large enough in relation to the monitoring goals. The table below captures these ideas within our new socio-technical grid:

**Table 6.3**: An outline of the socio-technical grid in terms of the information agreement (IA)

<table>
<thead>
<tr>
<th>Institutional Context</th>
<th>Actors/Participants</th>
<th>Technology (IT)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structure</strong></td>
<td>Scale of IA (institutional layers involved in the IA)</td>
<td>Scale of IA (corresponding actors involved in the IA)</td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td>Costs/benefits deriving from information exchanges at various institutional levels (i.e. monitoring practices associated with the use of technology; e.g. keying monitoring data, retrieving monitoring data, etc.)</td>
<td>Costs/benefits deriving from information exchanges for corresponding actors (i.e. monitoring practices associated with the use of technology; e.g. keying monitoring data, retrieving monitoring data, etc.)</td>
</tr>
</tbody>
</table>

Although our transformed socio-technical grid is capable of grasping these concepts, there are still some clarifications needed in the theory we are proposing and a few lessons we learnt from our fieldwork which bear upon the information agreement.

First, when looking for its embeddedness or disembeddedness, it is crucial to understand: a) whether formal monitoring contracts are struck at various institutional levels (i.e. institutional side); b) which are the actors that sign these contracts and formally agree to exchange monitoring information (i.e. actors/participants’ side); c) which typology of information they agree to collect and, as a consequence of that, what type of indicators they agree to construct (i.e. technology & indicators’ side); d) whether ongoing monitoring practices correspond with what has been formally agreed in terms of typology of information to be collected and categories of indicators to be devised. If monitoring practices diverge from formal agreements, then the information agreement will be hosted rather than embedded in which case we suggest to understand a) the rationale of these informal practices (i.e. why do actors resort to informal monitoring practices?); b) how these informal practices can be institutionalised although it is likely that their institutionalisation will be a time-consuming process. Second, since monitoring is an institutional glue which aims at examining the delivery of programme outputs to intended beneficiaries in an ongoing fashion, when assessing the scale of the information agreement one needs to be careful to identify whether the number of actors/layers that are mutually committed to this information exchange...
is large enough in relation to the programme outputs for the intended beneficiaries. Third, as far as scope is concerned, whereas our fieldwork has focussed on typologies of indicators to identify the quality of the information exchanged, we believe that one of the main shortcomings of our research was the fact that we did not analyse the categories of information which are collected in the first place. In other words, one should distinguish between types of information which is collected (1st degree agreement) and categories of indicators which are based on the information gathered (i.e. 2nd degree agreement). We believe that, instead of assessing the scope of the information agreement at the second level as we did in this report, one should rather look at the typologies of information that the various actors have agreed to collect because they stand for the foundation whereupon meaningful indicators can be based. Thus, the process of negotiation is likely to start at a much earlier stage, namely when the various stakeholders agree what type of information will be collected although it is likely to encompass the very typologies of indicators that will be devised.

The improvement of the methodology is to take the aforementioned lessons as a heuristic, a rule of thumb that could be followed to operationalise the otherwise vague concept of information agreement. Obviously, the set of concepts we are suggesting (i.e. embedded vs. hosted information agreement, scale and scope) is just a language that we hope European Member States will start using to categorise monitoring arrangements/information systems so as to create the foundations for a thorough assessment of their quality. After all, information agreements which are appropriately embedded or disembedded within a specific context and whose scale and scope are large enough in relation to the programmes’ objectives should be stronger, thus warranting a higher performance of the associated monitoring systems. The figure below outlines this train of thought while disentangling the research questions raised in the Call for Tender n. VT/2005/95:

**Figure 6.1:** A conceptual overview of our descriptive and evaluation tools

![Diagram](image)

Ultimately, based on our research, we suggest that a fruitful way to address the research questions set out by the Call for Tender VT/2005/95 consists of following these steps: first, one needs to look at costs/benefits deriving from using monitoring systems and exchanging information to understand the
factors that shape the interactions between and among the participants in the monitoring systems (Question 1); second, one needs to disentangle the various types of information that the monitoring systems’ participants agree to gather and, therefore, look at scope of the information agreement to understand their information requirements (Question 2); third, one needs to look at the number of actors and institutional layers which partake into these information exchanges to understand the context where monitoring occurs and the types of support system architectures needed (Question 3); fourth, one needs to draw from this descriptive analysis a set of performance criteria to assess the quality of monitoring systems (Question 4); fifth, and based on our cumulative concept of strength of information agreement, it is likely that stronger information agreements will lead to better performing monitoring systems.
7. Suggestions for the development of the monitoring arrangements in the next programming period

One of the objectives of this study has been to generate suggestions that could prove useful to the improvement of monitoring arrangements and information systems during the next programming period (2007 – 2013).

Our research does not provide in-depth, country-specific recommendations as it requires a greater quantity of analysis in order to fully assess performance and identify the factors that drive said performance in individual countries. However there are a number of recommendations that could be generalized to most situations and which are supported by our research.

One general opinion which appears to be shared by many of the individuals that have been interviewed during the field work is that the development or improvement of information systems/monitoring arrangements is indeed a complex task. Such an endeavour is characterised by some of the same complexities of any large scale IT or information-related project within either the public or private sector. There is also, in fact, a rather broad literature that attempts to explain the high frequency of these projects’ failures either when deployed within corporations or within the public administration (e-government).

However, the development of monitoring systems similar to the ones that are intended to support the ESF programmes, is, in fact, even more challenging than a typical IT project or, at least, it requires a different approach as opposed to the development of IT architecture in other contexts. The peculiarity of a system meant to monitor a large public investment programme like the ESF funded ones is that the information flows transit through different organisations that are loosely coupled with each other. By loosely coupled it is meant that within this web of organisations none of the actors can impose specific information requirements to the other participants to the network. This fact makes the establishment of arrangements capable of monitoring investment programmes, a task which is different than ordinary information system projects whose aim is to incorporate processes and support decision-making activities. In such a situation the success of monitoring systems becomes, as we have theorised from the very beginning, a matter of a voluntary and necessarily ever evolving, unstable endorsement of an information agreement.

Our study clearly confirms that reaching an information agreement it is not easy and it is no smaller a task to maintain such an information agreement in good working order. It is not enough to concur that an information agreement is in fact necessary, inviting various actors to put forward their ideas, there must also be a specific strategy, a communication plan to make such an agreement a priority within the agendas of the public administrations and private organisations involved. In other words an explicit work plan is necessary to make such an objective achievable.

In order to succeed one must understand the complexity of such an undertaking and determine the best method for reducing it. For instance, it seems clear that the problem to strike an agreement – as well as the one to develop the monitoring arrangements that will be associated to it - can be usefully divided into more manageable, smaller pieces. We have, for instance, witnessed several examples where information agreements developed on a small scale and reflecting bilateral relationships are more successful than large scale information agreements.
The main results that seem to emerge from our study can be summarised as follows:

1. **The information agreement is a powerful explanation of different levels of performance.**

The Information Agreement theory has, in fact, passed the test of the fieldwork we conducted during this research. In order for a monitoring system to work, it is necessary that the actors who are supposed to provide and retrieve the most important information be involved in the development of the system. Their preferences - in terms of a) information required and b) patterns/channels through which they would rather feed and receive information to and from the systems – must be treated as the foundations upon which the information systems are developed and maintained. This result is supported by our experience, but also strengthened by the logic and definition of information networks that actors in the field seem to take for granted: monitoring systems function only if each of the parties involved finds convenient the exchange of information and if, therefore, said parties have been asked to elaborate which sort of advantages in terms of information she or he expects in return.

2. **As a partial qualification of the above point, it is also not true that the more involvement and the more actors, the better the information agreement is.**

Beyond a certain level of complexity, information agreements become more difficult to achieve and the performance of information systems may decline. There seems to be a cost-benefit function associated with the scope of the information agreement: benefits initially prevail in step with the increase of actors involved in the development of the monitoring systems, whereas costs become larger when actors included into the negotiation become too numerous.48

3. **One partially unexpected result is that both performance and strength of information agreement do not seem positively correlated with the degree of decentralization of institutional settings.**

The existence of a decision making process involving more institutional levels was expected to correspond to more actors requesting information in order to control implementation processes, more interactions within the implementation processes and, ultimately, more demand and a larger investment in the information agreement and therefore better performance. The results of the study show that such a correlation is rather weak: cases where decentralization is low can achieve a better performance and more involvement of parties into the development of the systems. Several explanations (from the very definition of what we mean by decentralization which does not evidently correspond to regionalization to deviations – as we will mention in the next point – between formal and effective layouts of decision-making processes) can be attempted for this partially counterintuitive finding and each of them would require further investigations. However, the field work seems to point to the fact that delegation to more than one party at the same institutional level, can sometimes introduce elements of complexity that hinder the research of information agreement from the start.

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48 This is the reason why, throughout the report, we have stressed that the scale and scope of the information agreement need to be large enough in relation to the monitoring objectives, but not too large else the benefits deriving from the information exchanges will be outweighed by the costs.
4. One interesting finding of the study is that human endowments, individual and organisational capabilities and their effective wills can modify significantly the expectations posed on monitoring arrangements and therefore the strength and type of information agreement.

This is, in fact, one possible explanation for the rather weak influence of a formally decentralized decision-making process on the intensity of the information agreement. The fieldwork demonstrated that countries that are formally regionalised can re-centralise strategic decisions when it comes to developing monitoring arrangements. Vice versa, countries that use less delegation have provided examples of monitoring systems that correspond to the requirements of a rather large and diversified number of actors. This is, in some instances, the consequence of behaviours that are not always consistent – for reasons that the report elaborates – with the layouts that one may anticipate from analysing formal settings.

5. The size of the country and of the programme seems to explain part of the differences in terms of strength of the information agreement and performance, with smaller contexts faring better than larger ones.

The fieldwork’s findings that indicate that the contexts where information agreements tend to be stronger and the information systems’ performance tends to be higher are those countries and programmes characterised by relatively smaller dimensions. The heterogeneity of the programmes and the diversification of the social contexts tend, also, to increase with the size and both seem to make it more difficult to reach an information agreement: however, more investigation is necessary to understand the impact of these variables.

6. Similarly an excess of information requirements and, even more, confusion on the monitoring arrangements’ objectives are often associated with a reduction in the capability to effectively monitor programme implementation.

A negative correlation seems to exist, for instance, between expectations towards monitoring arrangements and effective performance. This consideration leads us both to a) the question of the number of parameters to be monitored that, sometimes, are too numerous to be associated with a target and to be systematically monitored and b) the objectives attributed to the monitoring arrangements that seem to be too broad in terms of the objectives that different actors tend to attach to them. As far as the number of information items contained by the monitoring systems in some countries we found that there is both the perception that the data requirements are too numerous but also evidence that the system is not capable of providing some information that seems, indeed, basic. For instance, the tracking of financial data, the follow-up of output and result indicators and the evaluation of the impact correspond not only to completely different typologies of information gathering activities, but also to objectives of different professional communities within the administration. The mixture of financial/ control concerns with operating/ managerial objectives and with strategic/ policy making demands tends to make one of these different priorities to prevail on the others. In many cases the monitoring arrangements seem to consider more urgent the financial dimension and to loss of information on the results of projects are tolerated (this is what happens in various countries where the advancement of training courses is checked on the basis of payment obligations generating the impossibility to record the advancement of activities that are not ready yet for demanding payment).
As far as the number of indicators, we witnessed a more fundamental problem of confusing data contained within the monitoring platforms and the indicators. Data are the numbers collected by monitoring channels and that have to be as close as possible to the description of the single, elementary event/ action funded by the project. Indicators are the results that will be calculated by the treatment of the elementary numbers. Confusing indicators and data may produce rigidity of the monitoring lay outs and sometimes the incapability to either produce fundamental data (some countries can not calculate the basic efficiency ratios) and or change them.

7. The architecture of the information flow tends to be vertical with more or less frequent and articulated feedbacks towards operating levels being the main difference associated to stronger or weaker information agreements.

Very few horizontal flows (between regions, between training agencies, for instance) have been detected. The flows are bottom up as they go through different levels. A consequence of such an architecture is that at each level data are more or less aggregated and this, sometimes, even implies a loss of knowledge (concerning individual beneficiaries, for instance). The situation appears more diversified as far as the feedback that upper institutional layers may give back to the ones that are positioned below. Alongside specific feedbacks, most systems allow for direct, differentiated access to the databases. The difference in terms of number of people that access the data that the study revealed is rather large and, although overlapping with the idea of information agreement scale, is one of the most significant measures of performance. Another difference in terms of feedback is the automatic detection of anomalies into the numbers provided by cross checking data. This functionality is activated with different intensity and sophistication by different systems.

8. Few member states are experimenting monitoring arrangements that are not codified in proper information systems. The limit of these experiments and that they often fail to become core to the monitoring activities.

The study found a rather large and diversified set of monitoring activities that are not codified into proper information system facilities. These activities tend to be concentrated on the various portions of the implementation of the ESF programmes which are not followed by information systems: impact on employment (placement), customer satisfaction, qualitative assessments of institutional capabilities are amongst the factors that are followed by these types of arrangements. These activities provide a rather effective way to experiment with new monitoring activities without bearing the costs and the rigidity of incorporating them into Information Systems. It should be said, however, that these forms of monitoring are rarely deployed with the intention to test them and to make the most successful ones components of the core, systematic, IS related monitoring activities.

9. The channels (contracts, steering mechanisms) through which strategic decisions on monitoring arrangements are transformed into technological decisions seem crucial.
One contradiction that the study found is between the perception that monitoring systems are not only about technologies and the way the actual deployment of the systems is carried out. In fact, the development of monitoring systems is still largely within the domain of technology experts who do not always have strong links with decision makers and managing authorities. After all not always more effective information agreement is mirrored by better performance. One of the elements that seems to create the misalignment between the two factors is the relationship between the decision making in terms of the monitoring arrangements’ requirements and the actual implementation in terms of IS codified processes. In some of the cases we observed the chain of actors between the two phases is simply too long and the final result may run the risk of not being consistent with the initial expectations.

10. It appears that few evaluations and strategic reflections on monitoring arrangements do take place.

Very few evaluations of the efficacy of the monitoring systems have been encountered by the researchers. Few independent evaluators have been asked to carry out specific analyses on this issue. Moreover, monitoring systems are not used to evaluate themselves: little attempt to develop proper indicators on the quality of the systems themselves has occurred, even if some countries have promoted some qualitative, even interesting self assessments. In addition, there is little systematic comparison amongst peers (regions, member states).

This is, once again, the result of the effective perception of the role of the monitoring arrangements that is not always as strategic as the Commission and the Member States acknowledge that it should theoretically be.

On the basis of the preceding information, it seems to us that, as mentioned earlier, in order to achieve a stronger information agreement and better performance, it is crucial to reduce the complexity of the institutional, social, technological context in which we operate. Along these lines, we believe that a number of suggestions can be formulated for the Member States and Regions willing to improve their approach towards the development and maintenance of the monitoring arrangements. These suggestions can be summarised as follows:

1. In large countries and in the case of large scale programmes one option is to limit the institutional context upon which monitoring systems are developed.

The difficulty in striking an information agreement is to choose an institutional and organisational context of the monitoring arrangements that is not too large or with overly loose relationships amongst parties. In a big, strongly regionalised country, it may then be more convenient to start from developing monitoring arrangements at regional levels and then focus on the need of these systems to exchange data amongst them.

2. There is a general need for the scope of monitoring arrangements to be more effectively communicated so that different information architectures may correspond to different objectives.
As mentioned before, beyond a certain point a negative correlation seems to emerge between expectations towards monitoring arrangements and effective performances.

More specifically we have, in most cases, observed the overlap of three very different objectives: the need to control payments so that financial advancements respect the obligations set for ESF programmes and abuses may be detected; the demand (most frequently associated to monitoring activities) to measure the results of the projects in order to correct deviations against expectations; the possibility to evaluate overall results for strategic, high level decisions.

The co-existence of the three roles also means that monitoring systems serve three different professional groups within administrations and the confusion tends to make the financial needs to prevail.

One possibility would be to separate the system meant to control the financial, as well as the procedural arrangements from the one supposed to monitor the outcomes. These would also imply more possibilities to cross check the data released by the two.

In addition the quantification of the impact is to be considered as a matter of evaluation, as such this problem is to be considered outside the domain of the monitoring systems.

It has to be said that these distinctions are rather clear in the ESF regulations and yet the fieldwork confirms that this approach is still to be shared by some of the actors involved in the development of the monitoring arrangements.

3. A better distinction between monitoring data and indicators can give to monitoring activities more flexibility and capability to cover diversified information requirements.

A common complaint concerns the excessive number of indicators. It is, in fact, true that sometimes expectations are set too high. Sometimes to the point that some contexts that display the largest proliferation of indicators in the programming documents are also the ones where it seems more difficult to see indicators regularly associated with a target and systematically monitored.

This may imply that the selection of the indicators has to take into account not only the preferences of the actors demanding information, but also an ex-ante evaluation of the feasibility of consistently tracking the data necessary to build the indicators.

More importantly we believe that there is often a problem in terms of the approach and methodology in the development of these systems. The distinction between the data that the monitoring systems are meant to collect and the indicators that are calculated on the basis of those data is not always clear. This last distinction is important because it also helps to respond to the need for flexibility that has emerged from the field work: the way systems should be developed is such that data should tend to be stable (and disaggregated at the individual level if possible) and indicators should, instead, change whenever needed (as their modifications should only imply to apply over time different formula to the same databases).

4. Horizontal information flows and peer access architectures should be promoted. Specific, user friendly communication patterns are to be developed to provide relevant information to important segments of actors that may be currently excluded from the information flows.

Flows tend, often, to be, as said before, vertical and bottom up (from the bottom towards the upper level(s)), with a number of consequences in terms of both lack of feedback and of information returned
to most operating levels and, even, a loss of information that, in some cases, tends to be aggregated so that the possibility to perform different analyses or calculate new indicators becomes limited. Feedback should, instead, be systematic both in terms of providing specific information and signalling mistakes or anomalies when detected. More importantly same institutional levels should communicate with one another and this may ignite learning processes so that systematic, structured ways to compare and, thus, improve performances are developed. The internet based approach to having a common database into which different actors can enter and access information can be a solution, and yet the way it has been applied (in some cases only a few actors can visualize the information and, on the contrary, in other cases there is no effective way to track who has input or modified information) does not fully correspond to the approach of having a monitoring platform as a common good available to different actors. Alongside more effective information architectures, some specific, targeted communication patterns have to be developed in order to reach some actors that tend to be at the periphery of the ESF implementation processes and that at the same time are pivotal to the good functioning of the monitoring systems. These actors tend to be outside the community of professionals that have the final administrative responsibility of the ESF programmes and are paradoxically positioned at the upper or at the lower echelons of the implementation chains. Policy makers, on one hand, and final beneficiaries (including training agencies, schools, universities), on the other, may not be willing to familiarize themselves with monitoring systems and yet providing them with relevant, targeted information can provide a higher priority to the monitoring arrangements agenda (by proving that monitoring information may have strategic value) and more reliability in the basic information (when demonstrating that monitoring may provide operational support).

5. **An essential reduction of complexity may be provided by an improvement of the patterns through which the consultation of the stakeholders takes place.**

If many actors need to be involved in the definition of the information to be collected and of the information systems architecture, the way they are involved should be more structured around the specific input of information requirements. Along these lines, we would recommend asking the actors specifically what kind of information they require, how frequently, through which communication mode. It is also advisable to use specific templates for these communications to be exchanged in an efficient way and menus of possible choices in order to make effective and smooth the consultation process. The interview guide we used in the fieldwork can be a base to un-bundle the information requirements of the various stakeholders that take part in the information agreement.

6. **The relationship between the Managing Authorities (and the other programme decision makers) and the information systems developers needs to be more effective.**

The fieldwork has demonstrated that in more than one case the administrators with overall responsibility for the programme seemed to not consider monitoring arrangements as a strategic lever for the governing of the programmes. Consequently they tend not to involve themselves in the system development phase. This situation becomes even worse when long chains of intermediaries and outsourcers separate the ESF decision makers and the system developers. A higher integration amongst actors seems necessary. More specifically we see that a non technical guideline outlining information requirement functioning as a link between the two phases is indeed of paramount importance.
7. Monitoring systems have to be considered as a platform and as ongoing arrangements whose features are defined in time on the basis of real process implementation, interactions amongst actors and information that effectively demonstrates itself over time to be necessary.

Monitoring arrangement contents and architecture can not be established once at the beginning of the programme with the expectation that they will hence remain constant over the entire programming period.

We also believe that the information systems’ shape (both in terms of information collected and communication channels) is to be considered as an evolutionary configuration. In an effort to minimize complexity, we recommend putting in place a procedure by which information contents and monitoring channels are reviewed every X (a predefined number) of months. Accordingly most of the outsourcing contracts need to be reinterpreted by shifting outsourcer resources from the initial development phase to the subsequent maintenance and updating period.

8. Not codified information systems have to become, once tested, part of the formal monitoring arrangements.

For the reason we just mentioned, monitoring arrangements have to allow for change and the not IS based monitoring arrangements that many countries have experienced give a relatively-low opportunity to experiment changes. The limit of some of these experiences is that they do not become, once positively tested, part of the formal monitoring arrangement and this reduces the reliability of the data (correctness of the value, consistency in timing and frequency) and the possibility to cross check them with other data contained into the IS.

9. The development or the improvement of the information systems is to be considered a change management programme, a collaborative process between and among various stakeholders and not a simple IS project.

A modification of technological systems that will reflect changes into information flows and into implementation processes is required. Such a change has to be approached with the logic of the collaborative process and of change management programmes.

Not all elements in the technological, social and institutional landscape can be modified at the same time. No change will happen without the energy of operating level actors that must first be identified and empowered. The transformation will depend heavily on the capacity to identify the right small scale modification (either in the technological, and/or in the social and/or in the institutional domain) that will yield some early success and trigger a larger transformation.

A small, enough empowered task force capable to integrate the Managing Authorities’ strategic point of view along with the capability to appreciate the technical feasibility of a certain information demand, may be best suited to leading such an effort.

Moreover if, as we said many times, better information systems can only be achieved through a mixture of institutional, organisational and technological choices, the development and upgrading of information systems requires competencies that go beyond technological ones – organisational, managerial and strategic approaches are all requisites.
The continuing lack of strategic, policy advisory capabilities in monitoring systems’ development projects seems to be both the most urgent matter to which we would like to draw the attention of the Member States.

10. Monitoring arrangements need to become an essential part of the evaluation activities in order to periodically have an external assessment and advice to further improve monitoring capabilities.

One finding of our research is that very few Member States and regions have experienced an ad hoc evaluation of monitoring systems. This reflects, once again, a lack of perception of the strategic role of monitoring arrangements and even more so of the nature of the monitoring systems. Evaluations can be useful in providing a different perspective and yet they have to be followed up with actions aimed at obtaining improvements in a relatively short time frame. Some of the indicators used in this research – like the number of people and the institutional levels effectively accessing (or requesting access to) the information platforms, or the assessments on cost / time spent for specific transactions – can be interesting in terms of shedding an initial light on the manner in which performance is evolving / progressing.

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We believe that these general suggestions, coupled with an evaluative methodology that this study has tested, provide a platform upon which specific projects within individual Member States and regions can be developed. The final objective should be to improve significantly monitoring arrangements within a reasonable time frame so that monitoring arrangements might serve as an efficient instrument for policy makers and administrators within the 2007 – 2013 programming period.