

Deliverable D4.3

Report on the impact of formal design of policy regimes for improving trust in regulation

Point of Contact Institution

Jacint Jordana

IBEI

E-mail jjordana@ibei.org

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Authors Jacint Jordana (IBEI), Libby Maman (IBEI), Ixchel Pérez-Duran (IBEI), Juan

Carlos Triviño-Salazar (IBEI), Jana Gómez Díaz (IBEI)

Reviewer Tobias Bach (UiO), Anne Gaspers (UiO)



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Abbreviations, Participant short names

Abbreviations

ΑТ **Active Transparency** EU **European Union** ΙT **Informational Transparency** LA **Legal Accountability Legal Inclusiveness** LI LMASC-TIGRE Large multi-actor, multi-level, multi-sector and cross-country survey database Survey **Legal Participation** LP LT **Legal Transparency** WP **Work Package**

Participant short names

UNIL Université de Lausanne UAntwerpen **Universiteit Antwerpen** IBEI Institut Barcelona d'Estudis Internacionals, Fundacio Privada HUJI The Hebrew University of Jerusalem **Uni-Speyer German University of Administrative Sciences** ΑU **Aarhus Universitet** Universitetet i Oslo UiO **Universiteit Utrecht** UU Kozminski Akademia Leona Kozminskiego SCIPROM **SCIPROM Sàrl**



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Summary

This report contributes to TiGRE research project by examining the formal characteristics of regulatory bodies as public institutions and how they affect stakeholders trust on these bodies. The report is based on the dataset on the institutional characteristics of the regulatory bodies that has been developed also for the TiGRE project, and the characteristics of the dataset have been reported in deliverable D4.1. The dataset on which this report is based includes 62 different indicators collected, that were grouped in six dimensions: transparency, inclusiveness, accountability, participation, political independence, and managerial autonomy. This report aims to explore how each of these six dimensions about the legal characteristics of regulatory bodies impact the level of trust of regulatees and stakeholders towards the regulatory bodies.

In this report, we detail the aggregated indexes constructed to measure each of the six dimensions, and thereafter we present a number of comparisons over sectors (finance, food safety and data protection) and countries (Spain, Germany, Israel, Belgium, Switzerland, Denmark and the EU as a whole), but also on types of regulatory body and administrative levels. Using the survey data from work package WP2, that provides stakeholders assessments of trust/distrust on these regulatory bodies, we examine whether there are correlations between levels of legal transparency, inclusiveness, accountability, participation, political independence, and managerial autonomy, with trust towards regulatory bodies as perceived by stakeholders and regulatees.

The results obtained allow us to identify relevant variations across dimensions when transparency, inclusiveness, participation, and accountability dimensions of regulatory bodies score lower than political independence and managerial autonomy. Participation has the lowest score, managerial autonomy has the highest. Taking all dimensions into account, our findings also show that the food safety sector has the lowest score, and the data protection sector has the highest. Comparing countries, it is evident that regulatory bodies in Germany have the most minimal legal obligations for all dimensions. Israel also has the most minimal legal obligations for these dimensions. In contrary, regulatory bodies in Denmark, Spain (including Catalonia) and the EU have a high degree of legal obligations for all dimensions. Finally, when we compare the regulatory bodies according to their organizational type, we can observe very clearly that agencies have much higher legal obligations for the six dimensions compared to ministries.

In the second part of this report, our findings indicate that legal requirements are not strongly correlated with the levels of trust either in the regulatory regime, or else, in the relevant regulatory agencies. However, our analysis found a wider variation in some countries across policy fields. For example, while in Spain the relationship between legal transparency and trust differs largely across sectors, the correlation patterns in Germany seem to be more similar across sectors. Our results also indicated a positive correlation between legal accountability towards the legislative branch and the level of trust in national regulators. Finally, we also show a negative correlation between political independence and trust in national regulators. This finding is interesting due to its counterintuitive nature, as many normative perspectives on regulation have suggested that regulators should be designed as independent bodies with the aim to improve their reliability and credibility. However, our descriptive analysis suggests that this relation is, at least, not producing more trust, from the perspective of stakeholders. Hence, further research is needed to identify whether such correlation persists when we include other covariates.

1. Introduction

This report explores the relationship between the legal obligations of different types of regulatory bodies for transparency, inclusiveness, accountability, participation, political independence, and managerial autonomy and the perceived levels of trust/distrust that political actors and stakeholders have toward them. Other aspects of regulatory bodies beyond legal obligations are not reported here.

The report seeks to examine, from a comparative perspective and building on the dataset of legal characteristics of regulatory bodies (Maman, Jordana, Pérez-Duran, Triviño and Gómez-Diaz, 2021), the legal framework of regulatory bodies, regarding the following dimensions: (1) transparency, (2) inclusiveness, (3) accountability, (4) participation, (5) political independence, and (6) managerial autonomy. The dataset includes regulatory agencies and ministries (or ministerial units) at the EU level, national levels in Belgium, Denmark, Germany, Israel, Spain and Switzerland, and also subnational for Germany, Spain and Switzerland (we separate the analysis as indicated). It focuses on three sectors (finance, food safety and data protection).

To assess the relationship between legal obligations of regulatory bodies and trust levels within the regime, this report builds on survey data collected in WP2 (Bach et al., 2021). Specifically, it builds on a large (n=1484) multi-actor, multi-level, multi-sector, and cross-country survey on trust and distrust in European regulatory governance. In the survey, respondents were asked about their trust and distrust in several general categories of actors, namely national regulatory agencies, ministries, parliament, certification and accreditation bodies, and courts as well as EU regulatory bodies.

This report aims to assess, through an exploratory analysis, whether levels of trust and distrust toward regulatory bodies is correlated with legal requirements such as transparency, accountability, participation, and inclusiveness of the organisations having core regulatory responsibilities, or with two other design aspects of such organisations: their political independence and managerial autonomy.

In the first section of this report, we describe the methodology that guided the construction of the measures of the formal characteristics of regulatory bodies. We then compare the levels of legal transparency, accountability, participation, inclusiveness, political independence, managerial autonomy in different countries, sectors, organisational levels, and actor types. In the second section of the report, we analyse and assess the correlation between the levels of trust toward regulatory bodies and their legal characteristics.



2. Measures of the formal characteristics of regulatory bodies

This report builds on the dataset of the legal obligations of regulatory bodies regarding transparency, accountability, participation, inclusiveness political independence and managerial autonomy (Maman, Jordana, Pérez-Duran, Triviño-Salazar and Gómez-Diaz, 2021). To be able to extract meaningful insights, and to be able to compare these dimensions across countries, sectors, level and organisational types, we have composed indexes of the dimensions by normalising and aggregating the indicators. This section reports on the methodology for the construction of the indexes.

2.1 Data

The database on which this report builds on, includes indicators on the legal design of regulatory entities regarding six dimensions: Accountability, Transparency, Participation, Inclusiveness, Political Independence and Managerial Autonomy. The database includes data on 35 key actors in three regulatory areas: Finance, Data protection and Food safety, operating at the European Union level and in a number of Member States (Spain, Germany, Belgium, Denmark) and non-Member States (Israel and Switzerland). The dataset also includes a sample of sub-national level institutions in countries where regulatory powers are decentralised.

The actors were identified in a previous step in the TiGRE project by country teams as regulatory bodies that deal with supervision and enforcement in each of the three sectors (Bach and Gaspers, 2021). The regulatory bodies that were identified, include either agencies, ministries, or ministerial units.

Table 1 presents the complete list of regulatory bodies which were included in the dataset (N=35).

Table 1: Regulatory bodies included in the dataset

	Food Safety	Finance	Data Protection
Spain	 Spanish Agency for Food Safety and Nutrition Ministry of Agriculture, Fishery and Nutrition Ministry of Health Ministry of Consumer Affairs 	2. Secretary of State for the Economy and Business Support, Ministry of Economy and Digital	
Israel	 Veterinary Services Israeli National Food Services 	.	1. Israeli Privacy Agency
Switzerland	 Federal Food Chain Unit and Federal Food Safety and Veterinary Office (FSVO) 	Supervisory Authority	and Information Commissioner
Belgium	 Federal Agency for the Safety of the Food Chain 	•	Authority (GBA)
Denmark	Danish Veterinary and Food Administration	Danish Financial Supervisory Authority	



Germany	1. 2.	Federal Ministry of 1. Food and Agriculture Federal Office of Consumer Protection and Food Safety	Federal Financia Supervisory Authority (BaFin)		Federal Commissioner for Data Protection and Freedom of Information
EU	1.	European Food Safety 1. Agency 2.	•		EDPS (European Data Protection Supervisor)
Spain regional level	1.	Catalan Food Safety Agency		1.	Catalan Data Protection Authority
Germany regional level	1.	Ministry of Nutrition, Rural Affairs and Consumer Protection Baden-Württemberg		1.	State Commissioner for Data Protection and Freedom of Information Baden- Württemberg
Switzerland regional level				1.	Cantonal authority for data protection Bern

The data was collected and coded according to a list of indicators which were developed to assess the legal obligations of regulatory bodies for transparency, participation, inclusiveness, accountability, political independence and managerial autonomy (Maman, Jordana, Perez-Duran, Triviño and Gómez-Díaz, 2021). Despite the conceptual overlap that exists among the concepts of transparency, participation, inclusiveness and accountability in the literature, the indicators we built upon derive from conceptually separated definitions (see D4.1). Table 2 reports the indicators included in the database and applied to all selected bodies.

Since the dataset aims at assessing legal operating characteristics of regulatory bodies, the coding was based on national (and/or regional) legislation only. Two types of legal norms are included: a) general legislation (legislation that regulates government agencies on general practices or on transparency legislation) and b) agency specific or sector specific legislation (which regulates a specific agency or a specific sector).

As specified in D4.1, the process of coding the formal indicators consisted of two steps. First, the coders revised the agency specific, or sector specific, legislation. Second, and only for the indicators that could not be found in the agency specific legislation, coding was based on general legislation. In some cases, coders or the coordinating teams have consulted with a legal scholar or expert with experience in the field for advice on the correct coding.

Table 2: Indicators included in the database

Dimension	Indicators
Formal Transparency	The legal obligation to Publish strategic plans Publish an activity report Publish the annual financial report Publish resolutions and enforcement decisions Publish the organisational structure Publish information on agency personnel Allow public to request information Publish guidelines for development of new rules Publish guidelines for the enforcement of existing
	rules 10. Publish the agency's code of conduct



	11. Publish minutes or resolutions of managing board12. Publish minutes or resolutions of advisory board/ stakeholder group/scientific committee
Formal Participation	 The legal obligation to Hold consultations on enforcement decisions Hold consultations on regulations Perform qualitative practices that include external actors in the decision-making. Perform quantitative practices that include external actors in the decision-making. Hold open board meetings
Formal Inclusiveness	The legal obligation to 1. Publish information in several languages on the website 6. Ensure gender equality in the agency personnel 7. Ensure non-discrimination (related to minorities) in the appointment procedures of agency officials 8. Ensure non-discrimination (related to gender) in the appointment procedures of agency officials 9. Ensure gender equality in the management board 10. For geographical representation in the management board 11. Include citizens'/consumers groups/NGOs representatives in the management board 12. Include firms'/business associations/employers representation in the agency board 13. Include scientific or professional organisations representation in the management board 14. Include trade unions representation in the managing board 15. Ensure gender equality in the advisory board/stakeholder group 16. For geographical representation in the advisory board/stakeholder group 17. Include citizens'/consumers groups/NGOs representatives in the advisory board/stakeholder group 18. Include firms'/business associations/employers representation in the advisory board/stakeholder group 19. Include scientific or professional organisations representation in the advisory board/stakeholder group 19. Include trade unions representation in the advisory board/stakeholder group
Formal Accountability	The legal obligation to 2. Submit a strategic plan to the legislative 3. Submit an annual activity report to the legislative 4. Submit an annual finance report to the legislative 5. Report the actions of the agency to the legislative on an ad-hoc basis 6. Submit a strategic plan to the executive 7. Submit an annual activity report to the executive



	 8. Submit an annual finance report to the executive 9. Report the actions of the agency to the executive on an ad-hoc basis 10. Report public spending's to an audit office
Formal Political Independence	Legal obligations for 1. Agency board membership professional requirement 2. Agency head professional requirement 3. Agency board term of office 4. Agency head term of office 5. Agency board membership appointment 6. Agency board membership dismissal 7. Agency board membership renewal 8. Agency head appointment 9. Agency head dismissal 10. Agency head renewal 11. Holding offices in government
Formal Managerial Autonomy	Legal obligations for 1. Budget approval 2. Budget control 3. Budget income 4. Organisational structure 5. Personal status 6. Personnel policy
Meta data	 Organisation's name Organisation's level Organisation's sector Organisation's type Whether the organisation has a managing board Whether the organisation has an advisory board Whether the organisation has a scientific committee Whether the organisation has a stakeholder group

2.2 Normalisation of the indicators

The first step toward the creation of composite measures involves the normalisation of all the indicators so that their value ranges from 0-1. This has been done since many of the indicators were originally measured on different scales. In Annex A all the required transformations from the original data are reported. In many cases, no change was required since most original indicators were binary consisting of 0-No, and 1-Yes. However, when the indicator consisted of more than two categories there was a need for normalisation. In the case of *ad hoc* reporting to the parliament an *ad hoc* reporting to the executive, the indicators were first split and then normalised. These cases are also reported in Annex A.

2.3 Aggregation

To move forward from the analysis of separate indicators we have aggregated the indicators in the dataset to create indexes of the six dimensions. These indexes were normalised as well. To calculate the total score, only applicable indicators were included. This means that if an indicator could not be coded since it was not relevant (e.g., if it is an indicator on an agency's managing board, and the agency does not have one), then it was not included for the normalised value in the total count of indicators as well as for calculating averages.

The indicators have been aggregated in the following way.



Legal transparency

To construct the index of legal transparency (LT) the average score of the following indicators (T) was calculated:

- 1. The legal obligation to publish strategic plans
- 2. The legal obligation to publish an activity report
- 3. The legal obligation to publish the annual financial report
- 4. The legal obligation to publish resolutions and enforcement decisions
- 5. The legal obligation to publish the organisational structure
- 6. The legal obligation to publish information on agency personnel
- 7. The legal obligation to allow public to request information
- 8. The legal obligation to publish guidelines for development of new rules
- 9. The legal obligation to publish guidelines for the enforcement of existing rules
- 10. The legal obligation to publish the agency's code of conduct
- 11. The legal obligation to publish minutes or resolutions of managing board
- 12. The legal obligation to publish minutes or resolutions of advisory board/ stakeholder group/scientific committee

$$LT = \frac{T1 + T2 + \dots T12}{\# Applicable T}$$

In addition, two sub-indexes were created to distinguish between two different types of transparency: Informational Transparency (IT) and Active Transparency (AT). While the former included indicators on making public basic information about the regulatory body, the later refers to legal obligations to publish information providing more details on the activity performed by the agency. These are the indicators included in each of the sub-indexes:

Table 3: Transparency sub-variables

Informational Transparency

- 1. The legal obligation to Publish strategic plans
- 2. The legal obligation to Publish an activity report
- 3. The legal obligation to Publish the annual financial report
- 4. The legal obligation to Publish resolutions and enforcement decisions
- 5. The legal obligation to Publish the organisational structure
- 6. The legal obligation to Publish information on agency personnel

Active Transparency

- The legal obligation to Allow public to request information
- The legal obligation to Publish guidelines for development of new rules
- 3. The legal obligation to Publish guidelines for the enforcement of existing rules
- 4. The legal obligation to Publish the agency's code of conduct
- 5. The legal obligation to Publish minutes or resolutions of managing board
- The legal obligation to Publish minutes or resolutions of advisory board/ stakeholder group/scientific committee

Legal participation

The index of Legal Participation (LP) has been created as the average of all applicable legal participation indicators (P). This means, for example, that if an agency does have a managing board, then the indicator on holding an open board meeting was not included in the calculation.



- 1. The legal obligation to hold consultations on enforcement decisions
- 2. The legal obligation to hold consultations on regulations
- 3. The legal obligation to perform qualitative practices that include external actors in the decision-making.
- 4. The legal obligation to perform quantitative practices that include external actors in the decision-making.
- 5. The legal obligation to hold open board meetings

Again, in order to calculate the total score, only applicable indicators were included.

$$LP = \frac{P1 + P2 + P3 + P4 + P5}{\#ApplicableP}$$

No sub-indices have been created for legal participation.

Legal inclusiveness

The index of Legal Inclusiveness (LI) has been composed as the average of all legal inclusiveness indicators (I), taking into account only the applicable indicators:

The legal obligation to...

- 1. Publish information in several languages on the website
- 2. Ensure gender equality in the agency personnel
- 3. Ensure non-discrimination (related to minorities) in the appointment procedures of agency officials
- 4. Ensure non-discrimination (related to gender) in the appointment procedures of agency officials
- 5. Ensure gender equality in the management board
- 6. For geographical representation in the management board
- 7. Include citizens'/consumers groups'/NGOs' representatives in the management board
- 8. Include firms'/business associations'/employers' representation in the agency board
- 9. Include scientific or professional organisations' representation in the management board
- 10. Include trade unions' representation in the managing board
- 11. Ensure gender equality in the advisory board/stakeholder group
- 12. For geographical representation in the advisory board/stakeholder group
- 13. Include citizens'/consumers groups'/NGO's representatives in the advisory board/stakeholder group
- 14. Include firms'/business associations'/employers' representation in the advisory board/stakeholder group
- 15. Include scientific or professional organisations' representation in the advisory board/stakeholder group
- 16. Include trade unions' representation in the advisory board

$$LI = \frac{I1 + I2 + \cdots . I16}{\# ApplicableI}$$

Three sub-indices were also constructed as the average of the following indicators:

Table 4: Inclusiveness sub-variables

Inclusiveness in the organisation		Inclusiveness in the managing board	Inclusiveness in the advisory/stakeholder bodies		
1.	Publish information in several languages on the website	 Ensure gender equality in the management board 	 Ensure gender equality in the advisory board/stakeholder group 		



2.	Ensure gender equality in the agency personnel	2.	For geographical representation in the management board	2.	For geographical representation in the advisory board/stakeholder group
3.	Ensure non-discrimination (related to minorities) in the appointment procedures of agency officials	3.	Include citizens'/consumers groups'/NGOs' representatives in the management board	3.	Include citizens'/consumers groups'/NGO's representatives in the advisory board/stakeholder group
4.	Ensure non-discrimination (related to gender) in the appointment procedures of agency officials	4.	Include firms'/business associations'/employers' representation in the agency board	4.	Include firms'/business associations'/employers' representation in the advisory board/stakeholder group
		5.	Include scientific or professional organisations' representation in the management board	5.	Include scientific or professional organisations' representation in the advisory board/stakeholder group
		6.	Include trade unions' representation in the managing board	6.	Include trade unions' representation in the advisory board

Legal accountability

Finally, to construct the index of Legal Accountability (LA), the following indicators were averaged:

The legal obligation to...

- 1. Submit a strategic plan to the legislative
- 2. Submit an annual activity report to the legislative
- 3. Submit an annual finance report to the legislative
- 4. Report the actions of the agency to the legislative on an ad-hoc basis
- 5. Submit a strategic plan to the executive
- 6. Submit an annual activity report to the executive
- 7. Submit an annual finance report to the executive
- 8. Report the actions of the agency to the executive on an ad-hoc basis
- 9. Report public spending to an audit office

$$LA = \frac{A1 + A2 + \cdots A9}{\# Applicable A}$$

Two sub-indices were created for accountability:

Table 5: Accountability sub-variables

Accountability to legislative/audit office Submit a strategic plan to the legislative Submit an annual activity report to the legislative Submit an annual finance report to the legislative

Accountability to executive

Submit a strategic plan to the executive

Submit an annual activity report to the executive

Submit an annual finance report to the executive



Report the actions of the agency to the legislative on an ad-hoc basis

Report the actions of the agency to the executive on an ad-hoc basis

Report public spending to an audit office

Other legal characteristics

The indicators referring to organisational and political relations of the regulatory body were also aggregated to two indexes, that we identify as Political independence and Managerial autonomy.

Political independence included the following indicators:

- 1. Agency board membership professional requirement
- 2. Agency head professional requirement
- 3. Agency board term of office
- 4. Agency head term of office
- 5. Agency board membership appointment
- 6. Agency board membership dismissal
- 7. Agency board membership renewal
- 8. Agency head appointment
- 9. Agency head dismissal
- 10. Agency head renewal
- 11. Holding offices in government

Managerial autonomy includes the following indicators:

- 1. Budget approval
- 2. Budget control
- 3. Budget income
- 4. Organisational structure
- 5. Personal status
- 6. Personnel policy

These two indexes were both aggregated as simple averages, giving equal weight to each indicator and only including applicable indicators.



3. Comparing levels of transparency, participation, inclusiveness, accountability, political independence, and managerial autonomy

This section describes and compares levels of transparency, participation, inclusiveness, accountability, political independence, and managerial autonomy in 35 regulatory bodies. First, it presents the levels of these characteristics in all of the bodies in the database altogether, and then it moves on to compare them between countries, sectors, organisation types and levels.

3.1 Overall level of transparency, participation, inclusiveness, accountability, political independence, and managerial autonomy

Figure 1 presents the overall average level of transparency, participation, inclusiveness, accountability, political independence, and managerial autonomy in the 35 regulatory bodies included in the dataset. It reveals the overall score of each dimension, indicating how they differ. Specifically, it shows that participation has the lowest score with only 0.16. It also shows that the other democratic mechanisms (transparency, inclusiveness, and accountability) score lower than the control variables (political independence and managerial autonomy). The dimensions which have the highest average score are managerial autonomy (0.5) and political independence (0.47).

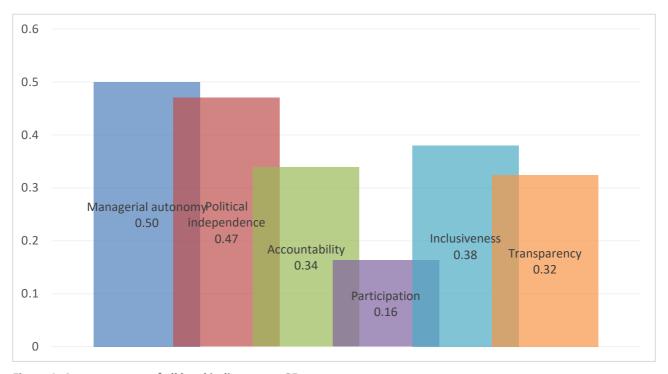


Figure 1: Average scores of all legal indicators, n=35

When the different bodies are compared according to the regulatory sector they belong to (Figure 2), and when all dimensions' averages are summed, it is evident that regulatory bodies in the food safety sector have the lowest total score and that regulatory bodies in the data protection sector has the highest total score.

Since the score presented in figures 2 to 6 reflects the sum of the average scores of all six dimensions, the possible range is 0-6.



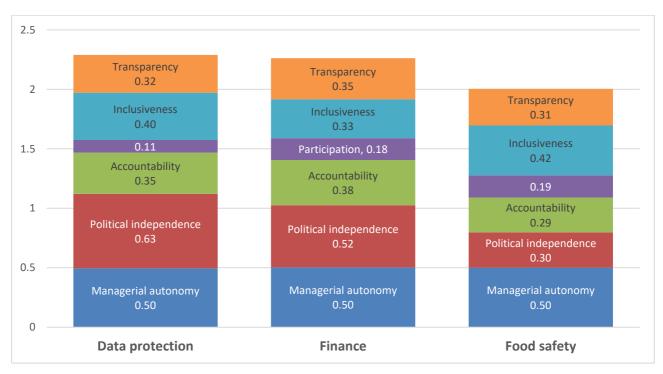


Figure 2: Average scores of all indicators, by sector

When all bodies are taken into account (ministries and agencies) and compared between countries, then it is evident that regulatory bodies in Germany have the most minimal legal obligation for transparency, participation, inclusiveness, accountability, political independence, and managerial autonomy (Figure 3). Israel is also among the countries with the most minimal legal obligations for these dimensions. In contrary, Regulatory bodies in Denmark, Spain and the EU have a high degree of legal obligations for these characteristics.

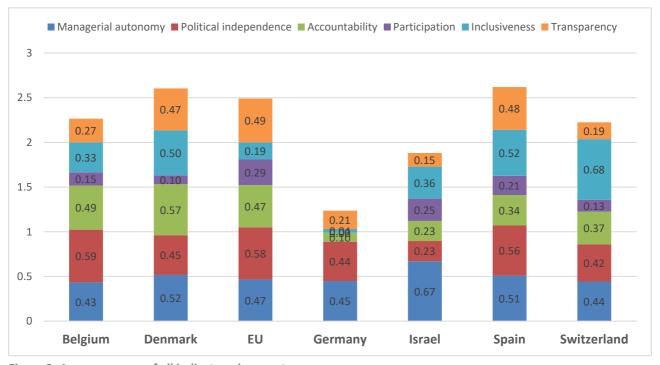


Figure 3: Average scores of all indicators, by country



For some of the countries in our sample, we have data for an additional regional level, and since we also included data on EU bodies, we can compare the average level of the characteristics among bodies of different levels; national, regional, and supranational (EU). Figure 4 shows that the EU level has the highest score. It should be mentioned though, that the regional level in our dataset includes bodies in Spain (Catalonia), Germany, and Switzerland only.

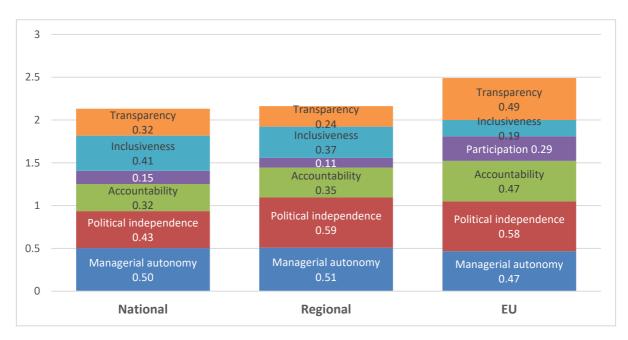


Figure 4: Average scores of all indicators, by level

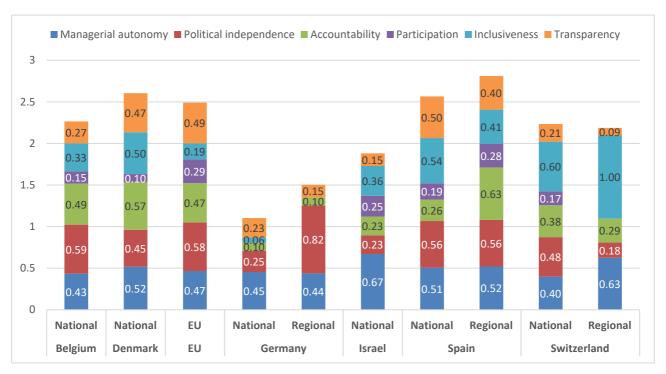


Figure 5: Average scores of all indicators, by country and level

Within the three countries with a regional level, we can see that there is a variance between the national and regional level (Figure 5). In Spain and Germany, the regional level has a higher overall score of legal obligations and in Switzerland both levels score the same, roughly.



Finally, when we compare the bodies in our dataset according to their organisational type, we can see very clearly that agencies have much higher legal obligations for transparency, participation, inclusiveness, accountability, political independence, and managerial autonomy (Figure 6). Ministries have less obligations.

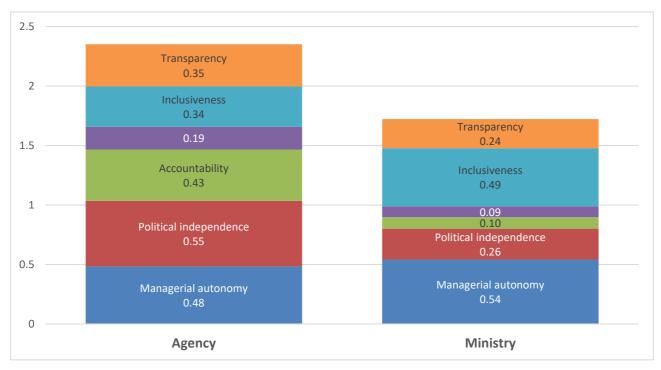


Figure 6: Average scores of all indicators, by organisational typee

3.2 Transparency

Since transparency has two sub-indexes, as detailed in section 1, we can compare sectors accordingly. Figure 7 shows very clearly that in all sectors, the level of informational transparency is much higher than the level of active transparency. However, we can also see that the level of both types of transparency is slightly higher for the financial sector.



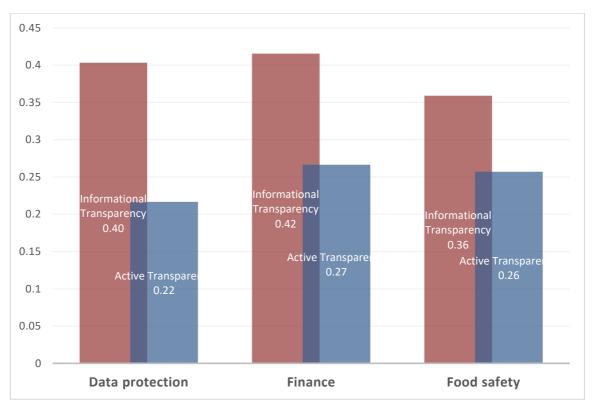


Figure 7: Average scores of transparency sub-dimensions, by sector



Figure 8: Average scores of transparency sub-dimensions, by country (Ordered by level of informational transparency)



When it comes to comparing transparency requirements between EU, national and regional levels, again, the EU has the most requirements, more than national and regional level (Figure 9). National bodies have more legal requirements for transparency than regional (Figure 10).

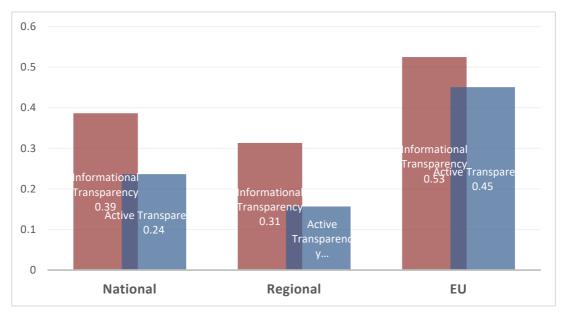


Figure 9: Average scores of transparency sub-dimensions, by level

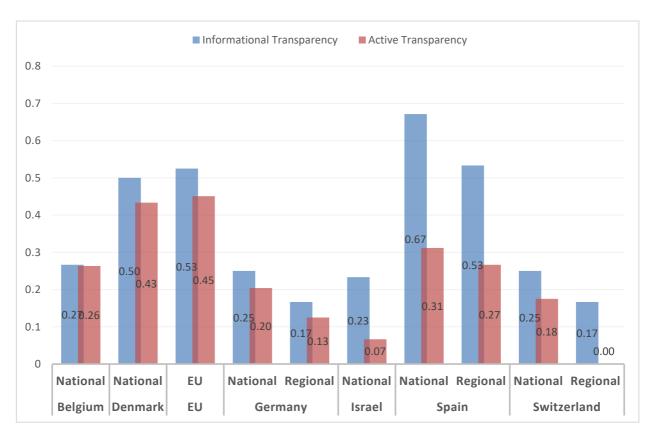


Figure 10: Average scores of transparency sub-dimensions, by country and level



Regarding the difference between types of organisations, it is evident that ministries have less transparency obligations than agencies (Figure 11).



Figure 11: Average scores of transparency sub-dimensions, by organisational type

3.3 Participation

Interestingly, participation requirements show a different picture than transparency, with less legal requirements overall.

Figure 12 shows that regulatory bodies in the data protection sector have significantly less participation obligations than the financial and the food safety sector.

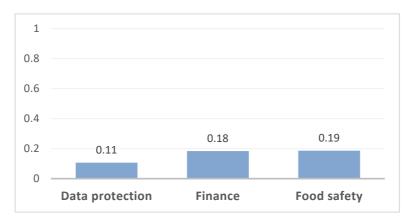


Figure 12: Average scores of participation, by sector

We also see that the countries score differently – Israel is the second highest participation requirements, slightly less than the EU, but more than the other 5 countries (Figure 13).



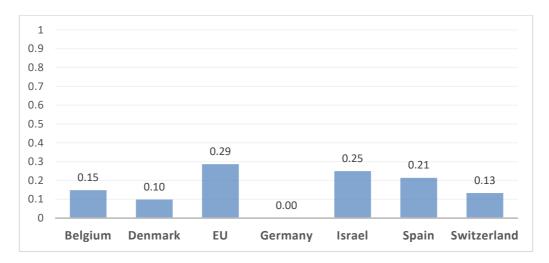


Figure 13: Average scores of participation, by country

Bodies in the national level have much more requirements than the regional and the EU (Figure 14).

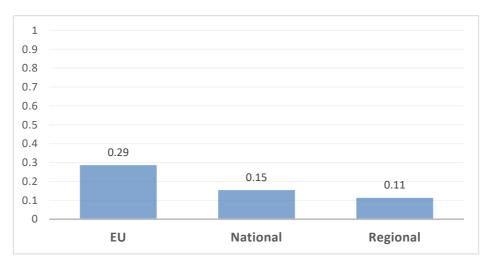


Figure 14: Average scores of participation, by level

Denmark has very few participation requirements. Spain has the highest level of participation requirements, and in the regional level it has more participation requirements than the national level (Figure 15).



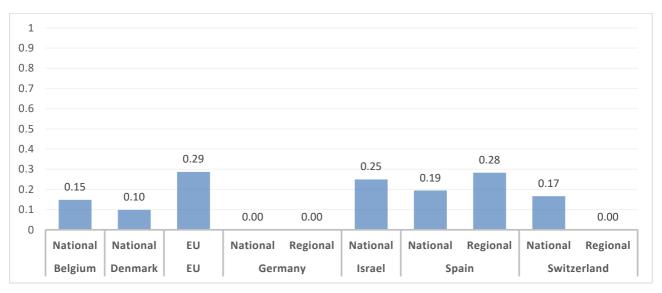


Figure 15: Average scores of participation, by country and level

However, like transparency, agencies have more legal obligations for participation than ministries (Figure 16).

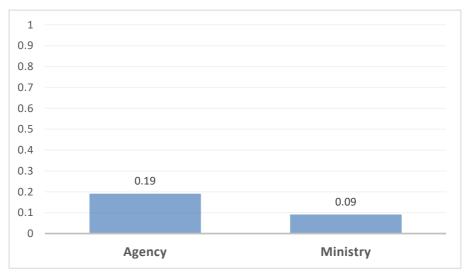


Figure 16: Average scores of participation, by organisational type

3.4 Inclusiveness

For inclusiveness, the data includes indicators on managerial and advisory board, which do not always exist in all regulatory bodies. Hence, it is important to note that we have calculated the scores only when the bodies do include these entities as well as to enable fair comparison.

The results show that while in the financial and the data protection sectors, inclusiveness is mostly a requirement for the organisation and not for the managing board, in the food safety sector the managing board has a strong legal requirement for inclusiveness (Figure 17). Levels of inclusiveness in advisory boards are more or less the same across sectors.



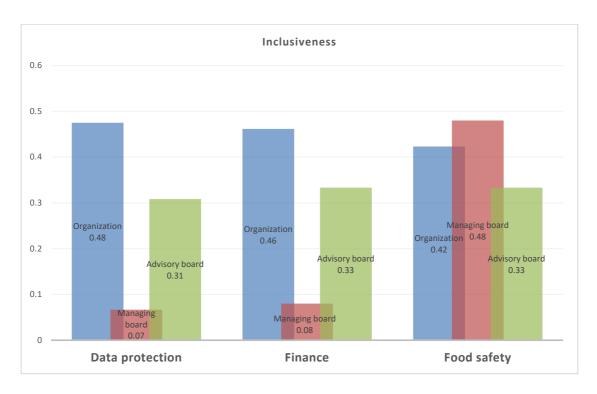


Figure 17: Average score of Inclusiveness sub-dimensions, by sector

When it comes to comparing countries, Switzerland has most legal requirements for inclusiveness in the organisation, but Spain has most obligations when it comes to inclusiveness in the advisory board (Figure 18). Germany has only requirements for inclusiveness in the advisory board, but not for the organisation.

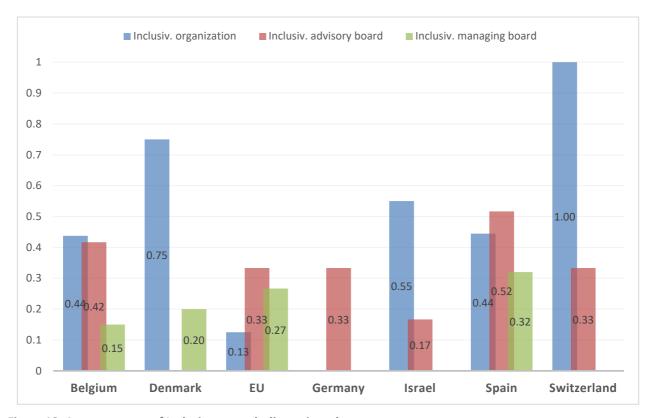


Figure 18: Average scores of Inclusiveness sub-dimensions, by country



Comparing levels, we see a more complex picture, where for each level there is an emphasis on inclusiveness in a different part of the organisation (Figure 19). Switzerland, for example, shows full inclusiveness requirements in the organisation, both for the national and regional level. However, only in national level bodies there is an obligation for inclusiveness in the advisory board (Figure 20).

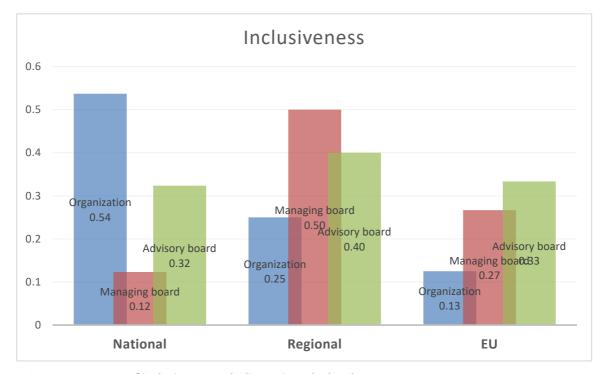


Figure 19: Average scores of inclusiveness sub-dimensions, by level

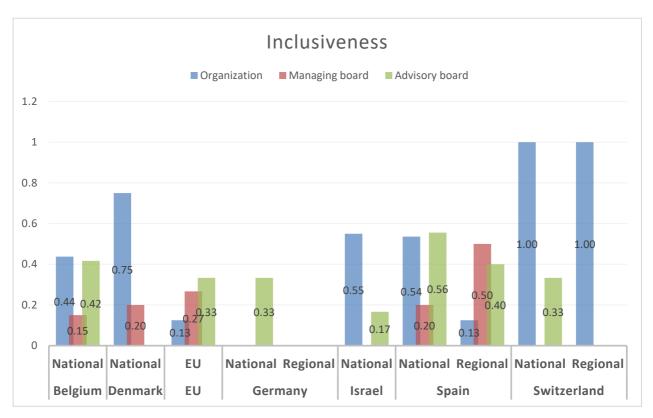


Figure 20: Average scores of inclusiveness sub-dimensions, by country and level



Finally, regarding organisation type, it is evident that while agencies have obligations for inclusiveness in all organisation bodies (in varying levels), for ministries, most obligations are for the organisation and fewer for advisory boards (Figure 21).

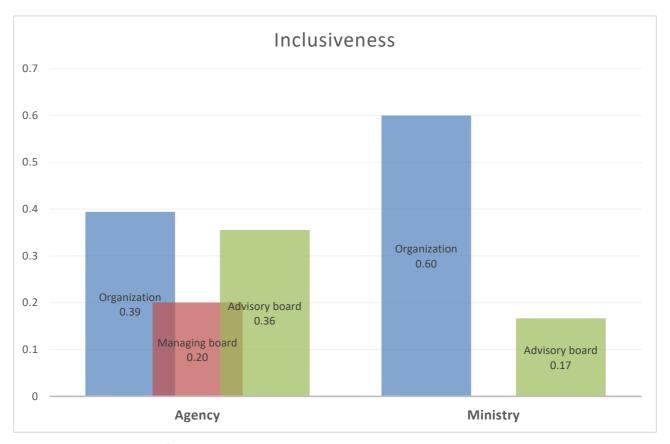


Figure 21: Average scores of Inclusiveness sub-dimensions, by organisational type

3.5 Accountability

Using the index of accountability to analyse the data, shows that the Food safety sector shows almost equal level of accountability to the legislative and to the executive. Figure 22 shows that for the Financial sector and for the Data protection sector, accountability to the legislative is more prominent than accountability to the executive.



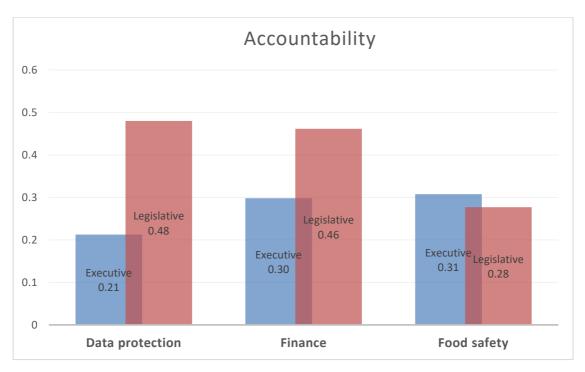


Figure 22: Average scores of accountability sub-dimensions, by sector

When countries are compared (Figure 23), findings show that Germany and Israel have the fewest legal obligations for accountability to the executive (Germany 0 and Israel 0.05). Denmark and the EU bodies, on the other hand, have the highest level of accountability to the executive. Regarding accountability to the legislative, Germany and Switzerland have the fewest obligations, and Belgium and Denmark have the highest, more than the EU bodies.



Figure 23: Average scores of accountability sub-dimensions, by country



Comparing levels, still, the EU has more obligations than national and regional bodies, both for accountability to the executive and for accountability to the legislative branch (Figure 24).

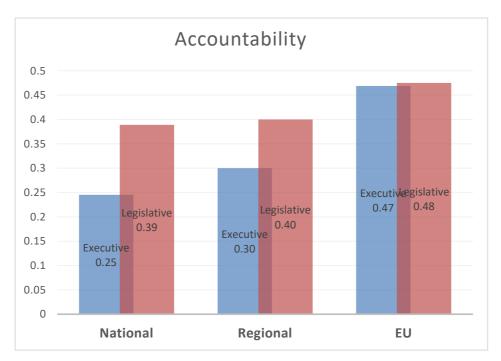


Figure 24: Average scores of accountability sub-dimensions, by level

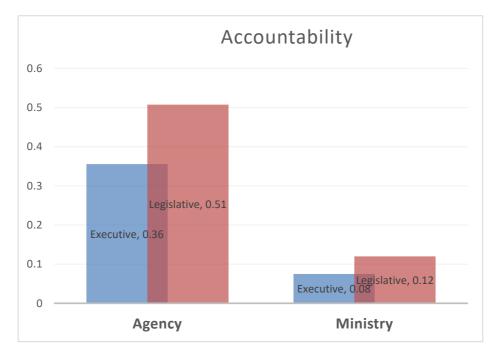


Figure 25: Average scores of accountability sub-dimensions, by country and level

Finally, comparing organisation types, clearly agencies have higher accountability legal requirements, both to the legislative and to the ministry (Figure 26).



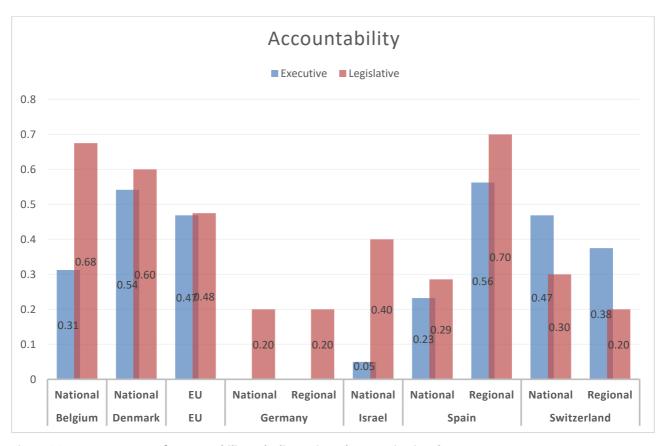


Figure 26: Average scores of accountability sub-dimensions, by organisational type

3.6 Political independence

The level of political independence is quite similar when comparing the independence of the agency board and the agency head, for both the data protection and the finance sector (Figure 27). In the case of the food safety, the agency head has less political independence than the agency board.

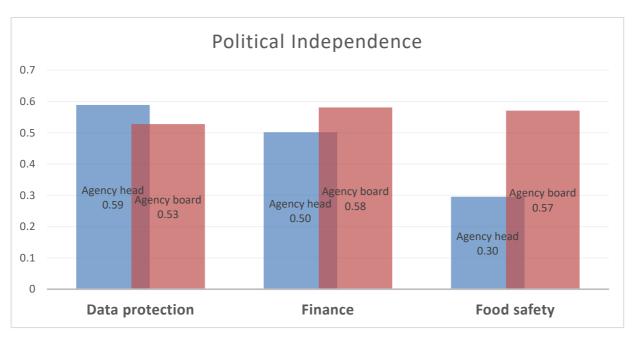


Figure 27: Average scores of Political Independence sub-dimensions, by sector



Comparing countries, Israel is the country with the least political independence for the agency head, and it has no legal obligation for political independence of the agency board (Figure 28). Denmark has also few obligations for independence of the head.

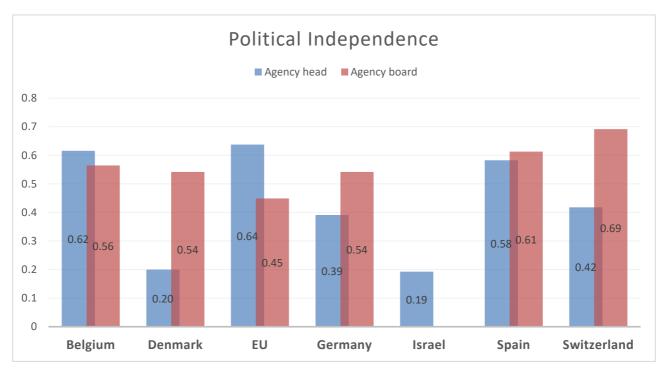


Figure 28: Average scores of Political Independence, sub-dimensions, by country

In general, national bodies have more obligations for independence of the managing board, and regional and EU bodies have more obligation for independence of the head of the body (Figure 29). This is especially true for Germany (Figure 30).

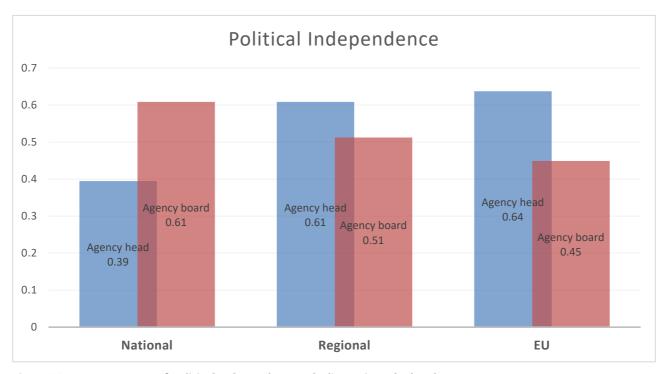


Figure 29: Average scores of Political Independence sub-dimensions, by level



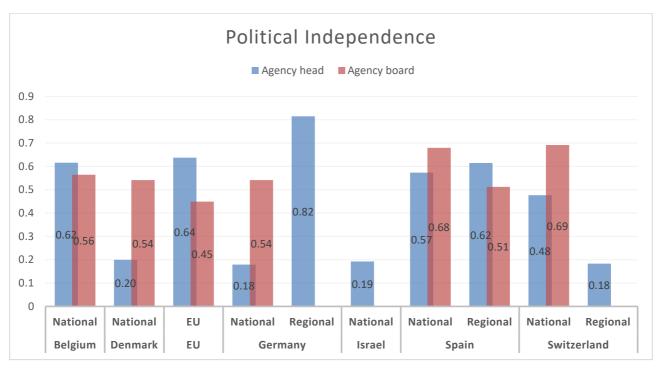


Figure 30: Average scores of Political Independence sub-dimensions, by country and level

Finally, ministries have no obligations for political independence of the managing board, since these organisations do not have these bodies. Agencies show a slightly higher level of political independence of agency board than agency head (Figure 31). Also, it is important to consider that ministers do not have explicit delegation and protections for separate decision-making; however, they have some level of conventional bureaucratic autonomy.

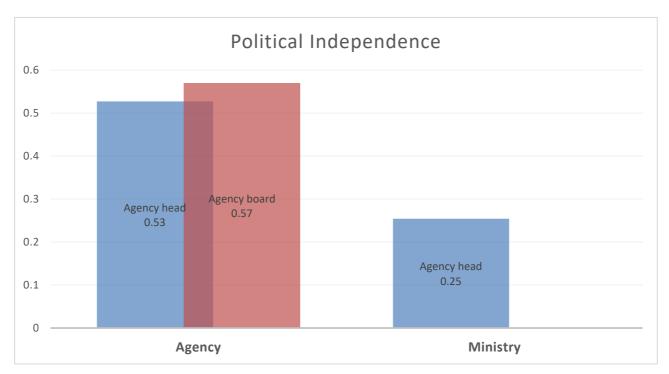


Figure 31: Average scores of Political Independence sub-dimensions, by organisation type



3.7 Managerial Autonomy

The three sectors we analysed show almost the same level of legal managerial autonomy (Figure 32).

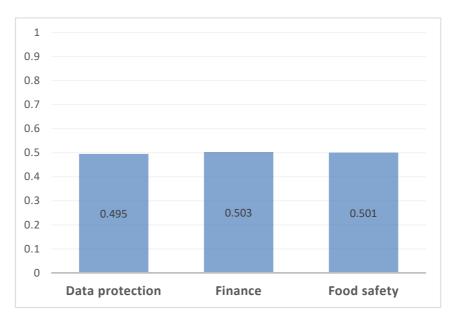


Figure 32: Average scores of Managerial Autonomy, by sector

However, there is a variance between countries (Figure 33). Contrary to the other dimensions, Israel has the highest level of managerial autonomy (0.67). Other countries have a medium level of legal managerial autonomy, ranging from 0.44-0.61.

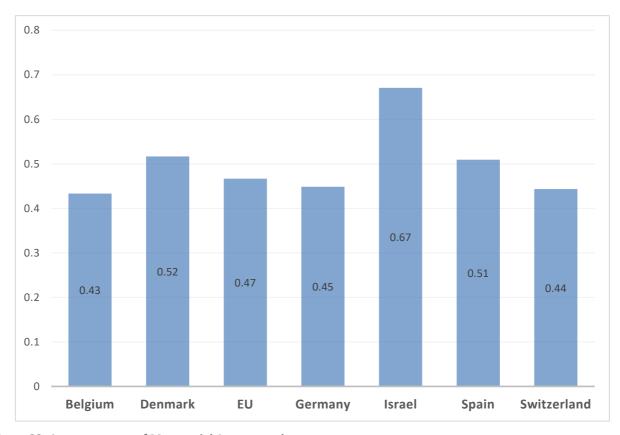


Figure 33: Average scores of Managerial Autonomy, by country



EU, national and regional level show almost the same degree of legal managerial autonomy, where the EU has a slightly fewer legal requirements for autonomy (Figure 34).

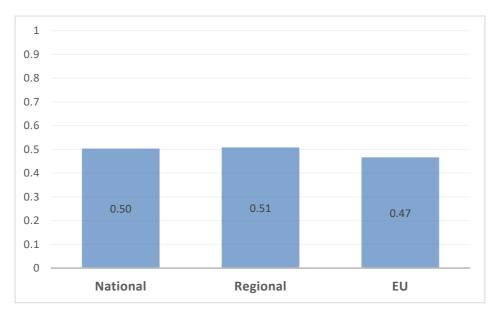


Figure 34: Average scores of Managerial Autonomy, by level

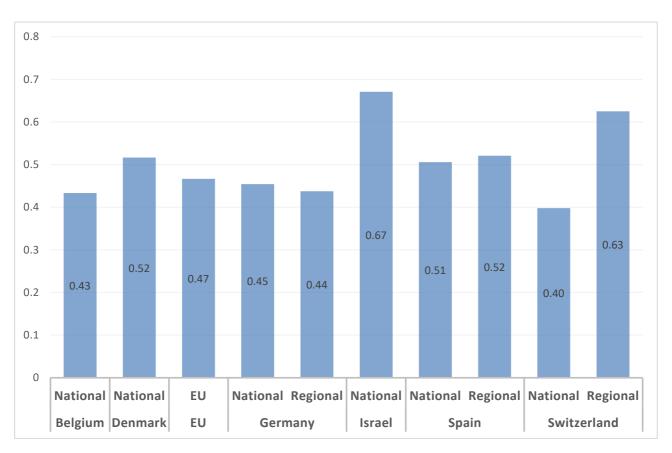


Figure 35: Average scores of Managerial Autonomy, by country and level

Finally, when it comes to comparing agencies and ministries, there is only a small difference, where ministries have 0.54 score and agencies have 0.48.



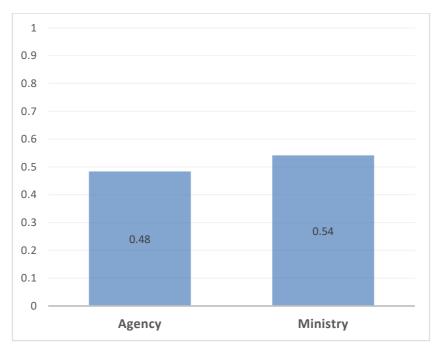


Figure 36: Average scores of Managerial Autonomy, by organisational type

3.8 Section summary

The results described in this section allow us to identify variations across legal obligation for transparency, participation, inclusiveness, accountability, political independence and managerial autonomy. We find that transparency, inclusiveness, participation, and accountability score lower than political independence and managerial autonomy. Specifically, participation has the lowest score among the dimensions, and managerial autonomy has the highest. Taking all dimensions into account, our findings also show that the food safety sector has the fewest legal obligations, and the data protection sector has the most.

When we compare the countries, we see that regulatory bodies in Germany have the most minimal legal obligation for all dimensions. Israel is also among the countries with the most minimal legal obligations for these dimensions. However, interestingly, Israel has the highest score of managerial autonomy. Regulatory bodies in Denmark, Spain (including Catalonia) and the EU have a high degree of legal obligations for the six dimensions. Annex B includes additional graphs comparing the regulatory bodies within each country.

When we compare these dimensions between levels of organisations (EU, national and regional). No significant variance for managerial autonomy is found. In general, national bodies have more obligations for independence of the managing board, and regional and EU bodies have more obligation for independence of the head of the body. However, accountability, participation and transparency, is much higher for the EU than for national and regional bodies. In the case of inclusiveness, each level has an emphasis on inclusiveness in a different part of the organisation.

Finally, when we compare the regulatory bodies in our dataset according to their organisational type, we can see very clearly that agencies have many more legal obligations for the six dimensions and ministries have fewer obligations. Managerial autonomy is the only case where agencies and ministries score almost the same, where agencies have slightly less obligations.



4. Exploring the relationship between the formal design of regulatory agencies and trust within the regulatory regime

The aim of this section is to examine the relationship between the institutional design of regulatory bodies (as defined legally) and their perceived levels of trust and distrust within regulatory regimes. In order to reach the aim mentioned above, we combine survey data with the six indexes constructed in the previous section, that identify different institutional dimensions of regulatory bodies. The survey data was collected in the "Large multi-actor, multi-level, multi-sector and cross-country survey database" (hereafter LMASC-TIGRE Survey) during WP2 of the TiGRE project and targeted to relevant actors (Bach & Gaspers, 2021) The part of the survey data used for our analysis includes a total of 1.038 respondents, with 105 respondents from Spain (67 of which in Catalonia), 166 from Denmark, 63 from Israel, 208 from Germany, 266 from Switzerland and 230 respondents from Belgium and covering three policy sectors (data protection, finance, and food safety).

Concretely, we use the indexes developed in the previous section, based on the dataset on the legal characteristics of regulatory bodies (as detailed in deliverable D4.1). Such indicators measure to what extent legal provisions in a country provide mechanisms for the transparency, accountability, participation, and inclusiveness in the operations of regulatory bodies, across the three policy sectors. We also include indexes of the two other dimensions examined: managerial autonomy and political independence.

In addition, we use a novel dataset based on a survey of relevant actors of the regulatory regimes that measures their levels of trust and distrust in regulatory bodies (agencies and/or ministries). This survey was conducted in a previous stage of the research. In particular, we use three survey questions. First, we use an item asking respondents' perceptions about how confident citizens can be in the regulation of their sector in general. Second, we use a question that taps into how much trust respondents place into the responsible regulatory bodies of their regimes, such as national and supranational regulatory agencies and ministries. Third, we use a survey question as a proxy measurement of distrust. It indicates to what extent respondents' organisations have to be watchful that regulatory agencies do not act in ways which may have negative consequences for them.

We divide the analysis of the data into three parts. In the first part, we examine the correlation between the aggregate levels (mean scores) of the trust level and of the distrust level in the regulatory regimes and the mean scores of the six dimensions. In the second part, we examine the relationship between individual perceptions survey participants have on the performance of regulatory bodies in their respective regulatory regimes and the mean scores of the six institutional dimensions in each of these regimes.

Finally, the third part provides a descriptive analysis on the relationship between individual levels of trust in both national and supranational regulatory bodies, and the specific level of legal transparency, participation, inclusiveness, accountability, political independence, and managerial autonomy of these regulatory bodies.

4.1 Relationship between the six legal dimensions and to what extent citizens can be confident in the regulation of the sector

In this section, we examine the relationship between individual perceptions on trust in how the sector is being regulated and the average of legal transparency, participation, inclusiveness, accountability, political independence and managerial autonomy in each policy sector.

To measure trust in the regulatory regime, we use the following question from the survey targeted to actors of the three regulatory sectors: "Think about how [policy sector: protection of personal data/financial services/food safety] is regulated in [your country]. Can citizens be confident that [their personal data/their financial assets/the food they eat] is handled safely?" Responses are ordered in a Likert scale (from 1 to 7, where "1" corresponds to "completely unconfident" and "7" to "completely confident". For this analysis, we assigned to each respondent of the LMASC-TIGRE survey the average score of each specific index, according to their national regulatory regime.



As for the index on legal **transparency**, it is worth mentioning that the index of legal transparency combines twelve variables measuring different aspects of information to be available and active transparency, as detailed in the previous chapter of the report. The second index measures legal **accountability**. It combines nine variables measuring different aspects of accountability to legislative and executive.

Figure 37 shows the relationships between the individual perceptions on trust in how the sector is being regulated and its levels of legal transparency and accountability. For each sector, the level of legal transparency and accountability of the national regulator are constant. The individual data points refer to the different answers given by respondents of the LMASC-TIGRE Survey (Bach & Gaspers, 2021) to the question on whether citizens can be confident in the regulation on the sector. The tables display a considerable amount of variation on both variables. The fact that there is a great amount of variation on the variable of perceived performance across sectors and countries regardless of their levels of legal transparency and accountability shows that there is no considerable level of correlation between the two variables.

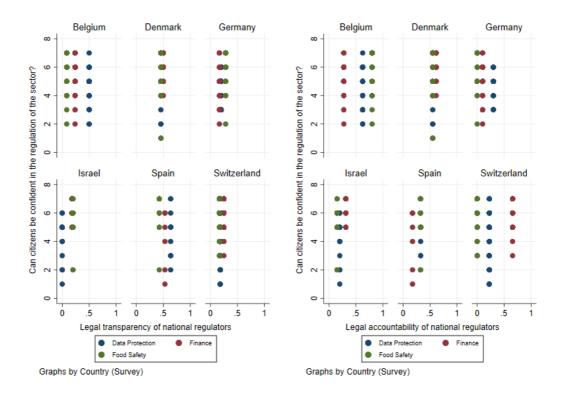


Figure 37: Legal transparency and accountability and performance of the national regulatory regimes, by country

Next, we look at the indicators of legal participation and legal inclusiveness. The index of legal **participation** combines five variables measuring different aspects of participation of different stakeholder groups. The index of legal **inclusiveness** consists of 16 variables that measure different dimensions of inclusiveness in the organisation, its managing board, and its advisory/stakeholder bodies.

Figure 38 plots the relationships between the perceived performance of the regulatory regime and its levels of legal participation and inclusiveness across policy sectors and countries. Despite moderate variation of the indicators of participation and inclusiveness between policy sectors and countries, there is no clear trend in the distribution of perceived performance of the regulatory regimes.



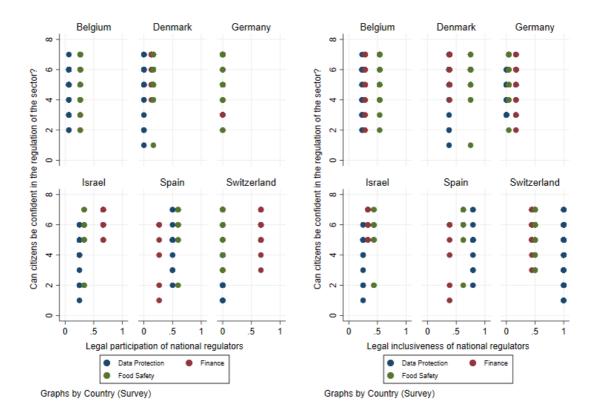


Figure 38: Legal participation and inclusiveness and performance of the national regulatory regimes, by country

Finally, we include the two other institutional dimensions, managerial autonomy, and political independence. **Managerial autonomy** is an index that measures different aspects of autonomy of regulators. **Political independence** measures ten dimensions of the independence of the agency head and agency board.

Table 5 and Table 6 plot the correlations between perceived performance of the regulatory regime and its levels of legal managerial autonomy and political independence. Again, there is a considerate amount of variation and no clear correlation pattern between autonomy and political independence of regulatory regimes and their perceived performance.



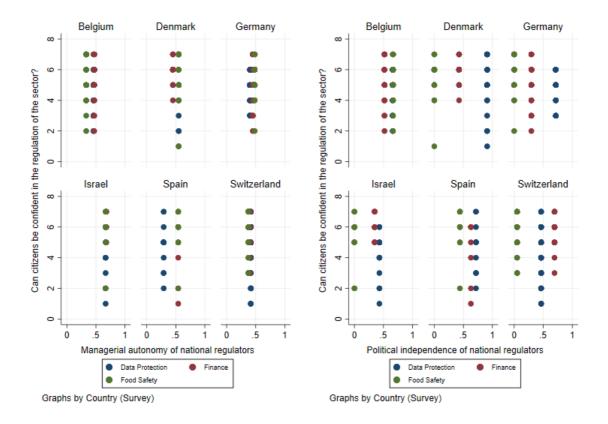


Figure 39: Legal autonomy and political independence and performance of the national regulatory regimes, by country

4.2 Relationship between legal transparency, participation, inclusiveness, accountability, political independence and managerial autonomy and the aggregate levels of trust and distrust in regulatory bodies

In this section, we explore the relationships between legal transparency, participation, inclusiveness, accountability, political independence and managerial autonomy of national regulators and the amount of trust and distrust placed in them by the surveyed actors. Specifically, we use the following survey item: "Think of your experience in your organisation. How much trust do you have in each of the following institutions?". As for the measure of distrust, we include the following survey item: "In your opinion, should your organisation be watchful that the following institutions' actions do not negatively impact your organisation?" The sub questions included in this section are "National agency(ies) regulating [the use of personal data / the financial sector / food and food safety]" and "Ministry(ies) involved in developing and implementing [data protection legislation / financial regulation/ food safety legislation]". The answers are measured on a Likert scale from 0 to 10, where "0" corresponds to "No trust at all" and "10" to "Complete trust". As for the distrust measure, "0" stands for "Not watchful at all" and "10" to "Very watchful".

In order to simplify the visual analysis, we use the average of the reported trust levels for each policy sector at the national level. To do this, we use the scores of the respective regulatory agency or ministries. In the cases where there are several agencies or ministries in the same sector (e.g., the case of the finance sector in the EU), we use an average of all regulatory bodies. We call this aggregate variable "*Trust in national regulators*". In the subsequent tables, we plot the latter variable against the different democratic qualities described in section 2.1.



Although these correlations do not allow us to observe -in a robust manner- the correlation between individual perceptions of regulatory bodies and legal characteristics of specific bodies, we can observe variation across policy sectors. That is, Figures 40-45 allow us to observe variations across the three sectors investigated, and, across the dimensions.

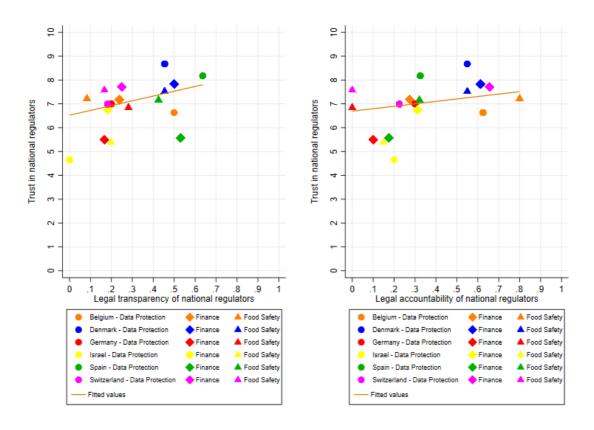


Figure 40: Legal transparency and accountability and trust in national regulators, by country

As Figure 40 shows, when we examine the correlation between the mean scores of trust in the food safety sector and legal transparency, we can observe a positive and significant correlation between them (corr score= 0.13). This is also in line with the significant correlation between legal accountability and trust in the food safety sector (corr score= 0.22). In sum, these results show that high levels of formal accountability and transparency of regulatory bodies in the food safety sector are positively correlated with their levels of trust. This can also be observed from the fitted regression lines. The lines show the overall trend of the relationships between legal transparency/accountability and trust in the three policy sectors. The lines have positive slopes, which indicates that a higher score on the transparency/accountability index is correlated with a higher amount of trust in the regulators. However, this relationship is only moderately strong, which can be observed by the data points scattered only loosely around the regression line. When we focus on legal accountability, Figure 40 shows a significant correlation with the trust in the three sectors examined (corr score between accountability & trust in the finance sector= 0.89, and corr between accountability & trust in data protection=0.29).



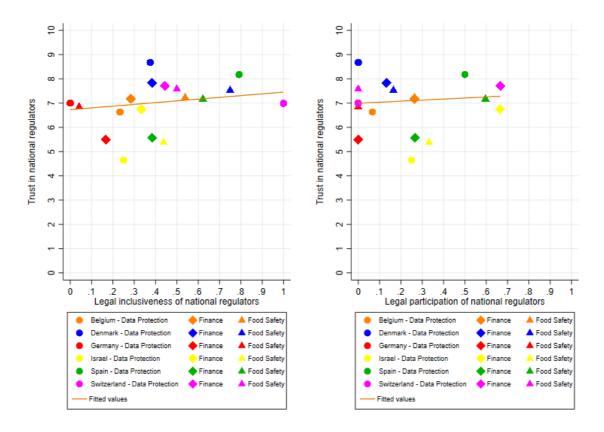


Figure 41: Legal inclusiveness and participation and trust in national regulators, by country

Figure 41 shows the correlation between legal inclusiveness and trust in national regulators, in which we identify high levels of positive correlation, specifically with the sectors on food safety (corr index= 0.51) and finance (corr index= 0.84). Interestingly, when it comes to the measurement of legal participation, our descriptive analysis shows a negative correlation between more formal provisions of participation in regulatory bodies and the levels of trust in the sectors data protection (corr score= -0.14) and food safety (corr score= -0.18); while only in the sector of finance both indicators are positively correlated (corr score= 0.57). Further explanatory research is needed to identify causal relationships between such variables. The regression lines also display this relationship. While they have slightly positive slopes, especially the observations for legal participation are very loosely scattered around the regression line.



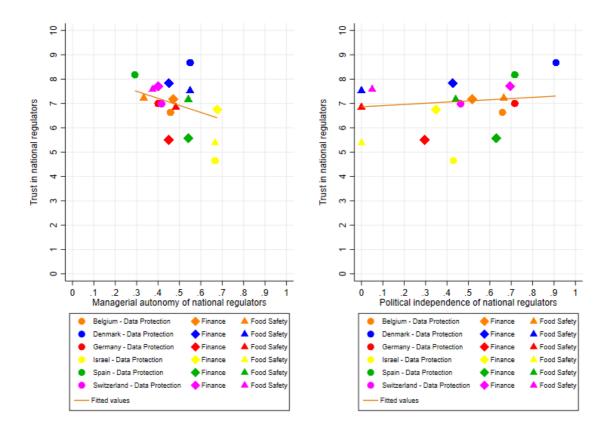


Figure 42: Legal autonomy and independence and trust in national regulators, by country

Figure 42 shows the correlation between legal autonomy and independence, and trust in national regulators. In general, we can observe that while legal independence and trust in the sectors of data protection and finance is highly correlated, there is no correlation with trust in the food safety sector. Interestingly, our descriptive analysis indicates that legal political autonomy is negatively correlated with the trust in the sectors on data protection and food safety. This can also be observed by the steep negative slope of the fitted regression line in the case of autonomy, while the regression for independence has a much flatter, positive slope. Although the conceptualization of both autonomy and independence shares common aspects, the descriptive data show that more explanatory analysis is needed to disentangle the effect of specific dimensions of (managerial) autonomy and (political) independence.



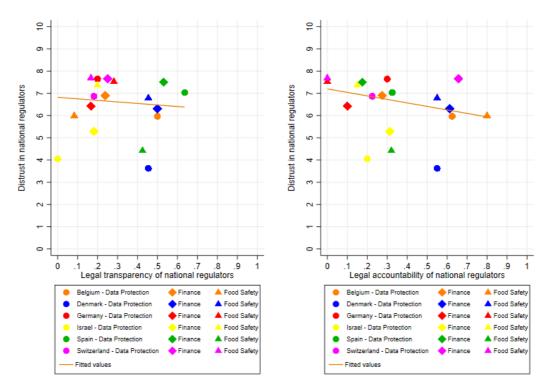


Figure 43: Legal transparency and accountability and distrust in national regulators, by country

When it comes to the relationship between legal transparency/accountability and distrust, the descriptive analysis displayed in Figure 43 is in line with that on trust in regulatory bodies. For example, the correlation between legal accountability and distrust is negative and significant for the sectors on data protection (corr index= -0.44) and food safety (corr index= -0.81).

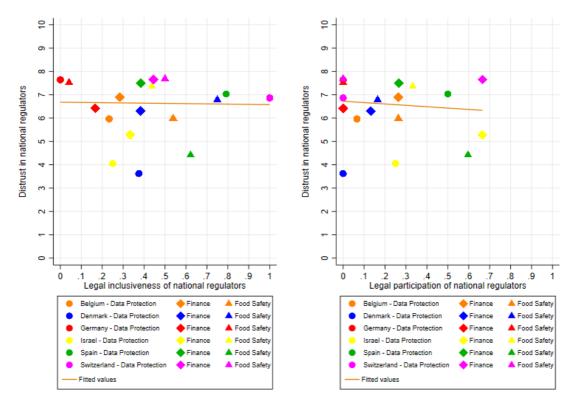


Figure 44: Legal inclusiveness and participation and distrust in national regulators, by country



As Figure 44 shows, the correlation between legal participation/inclusiveness and distrust has variation across policy sectors. For example, while legal participation has a significant and a negative correlation with distrust in the food safety sector (corr index= -0.90), its relationship with data protection and finance is not straightforward. This is also exemplified by the particularly flat regression lines with data points being very scattered. Further analysis will benefit from comparative analysis across countries.

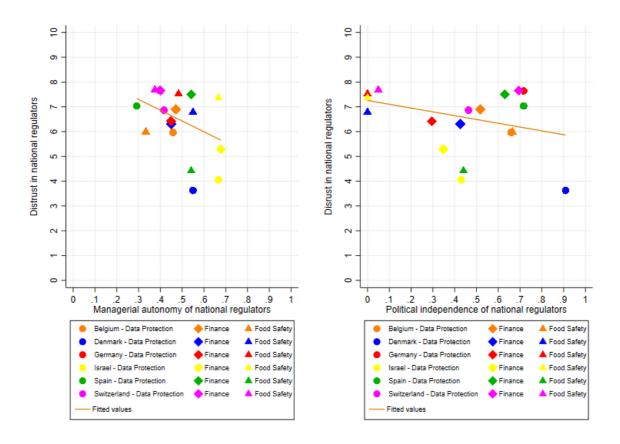


Figure 45: Legal autonomy and independence and distrust in national regulators, by country

Figure 45 shows counterintuitive results when it comes to the sectors on finance and food safety: while the correlation index is significant and negative when it comes to data protection; the correlation between both dimensions (legal autonomy and independence) and trust in the sectors of food safety and finance is not consistent among them.



4.3 Relationship between legal transparency, participation, inclusiveness, accountability, political independence and managerial autonomy and the levels of trust in regulatory agencies

In the third and final section of this chapter, we examine the relationships between the six institutional dimensions and the trust placed in regulatory agencies (at both national and EU level) in more detail. Concretely, we use individual perceptions of trust of the survey - instead of the aggregate score. As for the indicators of individual trust we use the following question: "Think of your experience in your organisation. How much trust do you have in each of the following institutions?". Because of the low number of ministries, we only include perceptions of national and supranational (EU-level) agencies. For each regulatory agency, we use their respective indexes on the democratic qualities (legal transparency, accountability, participation, inclusiveness, independence and autonomy). This means that we assigned the level of each democratic quality to each respondent of the survey. As in section 2.1, the individual data points refer to the different answers given by respondents of the LMASC-TIGRE Survey) (Bach & Gaspers, 2021) to the question to what extent they trust the regulatory agencies.

Hence, from this analysis we will be able to observe the correlation between the level of trust that respondents have in specific agencies and the levels of accountability, transparency, participation, inclusiveness, political independence, and managerial autonomy in such agencies.

4.3.1 Relationship between legal transparency and accountability of regulatory agencies and

National agencies

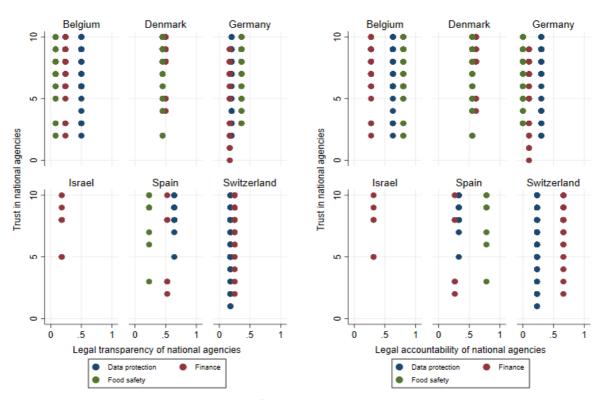


Figure 46: Legal transparency and accountability of national regulatory agencies and trust, by country



EU agencies

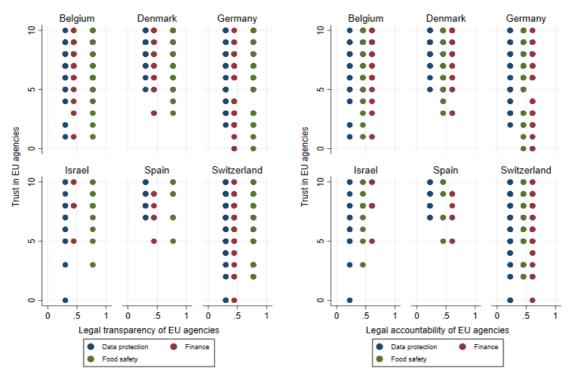


Figure 47: Legal transparency and accountability of EU agencies and trust, by country



4.3.2 Relationship between legal participation and inclusiveness of regulatory agencies and trust

National agencies

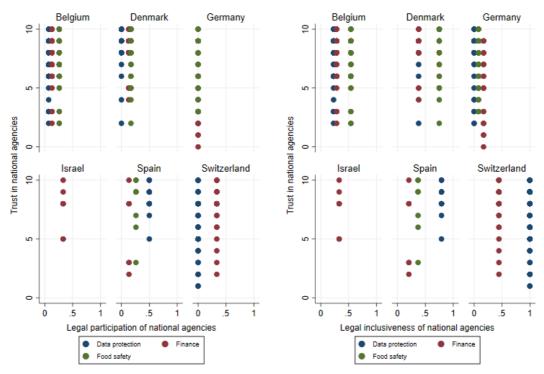


Figure 48: Legal participation and inclusiveness of national regulatory agencies and trust, by country

EU agencies

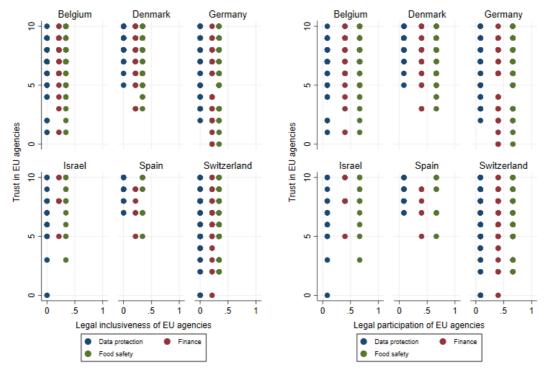


Figure 49: Legal participation and inclusiveness of EU agencies and trust, by country



4.3.3 Relationship between legal managerial autonomy and political independence of regulatory agencies and trust

National agencies

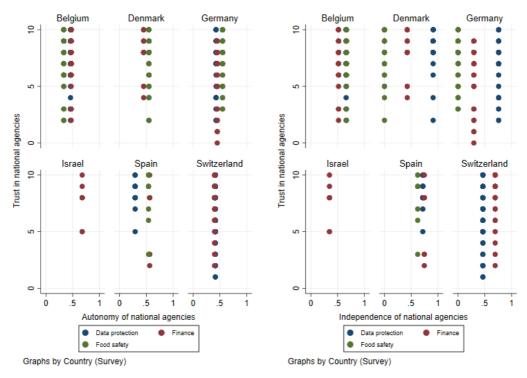


Figure 50: Legal managerial autonomy and political independence of national regulatory agencies and trust, by country

EU agencies

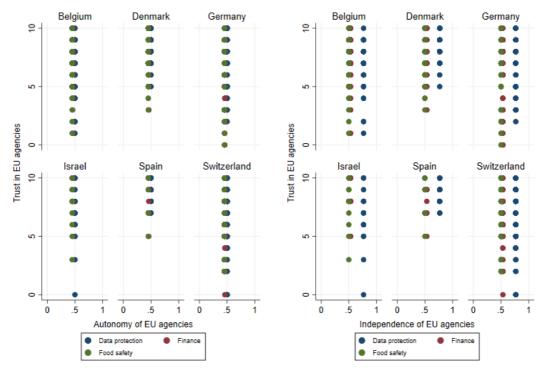


Figure 51: Legal managerial autonomy and political independence of EU agencies and trust, by country



4.4 Exploring relationship between (sub-)dimensions of transparency, inclusiveness, participation, accountability, autonomy, independence and trust in regulatory regimes

After the visual inspection, we perform several correlation tests between (sub-)dimensions of **transparency**, **inclusiveness**, **participation**, **accountability**, **managerial autonomy**, **political independence** and trust in national regulatory agencies aggregated at the sector-level) and national regulators, aggregated at the country-level. Table 6 shows these correlation results. In sum, it is worth mentioning that there are no strong correlations between the variables in question. The strongest correlation found is that between legal accountability and trust in finance agencies (0.240), even though this correlation is only moderately strong. There are weak correlations between transparency and trust in data protection agencies (0.125), transparency and trust in food safety agencies (0.101), accountability and trust in data protection agencies (0.136), participation and trust in finance agencies (0.145), inclusiveness and finance agencies (0.175), as well as independence and trust in data protection agencies (0.171). The other correlations are negligible. Most correlations point in the expected direction. However, some correlations are negative (participation and inclusiveness and trust in data protection agencies, as well as participation and independence and trust in food safety agencies). However, these correlations are so small that we should not give much importance to this unexpected direction of correlation.

Table 6: Pairwise correlations between the indexes and trust in national agencies

Variables	Trust in Data Protection Regulators	Trust in Finance Regulators	Trust in Food Safety Regulators
Legal Transparency	0.125	0.068	0.101
Legal Accountability	0.136	0.240	0.069
Legal Participation	-0.059	0.145	-0.010
Legal Inclusiveness	-0.062	0.175	0.109
Managerial Autonomy	0.012	0.016	0.012
Political Independence	0.171	0.042	-0.021

Table 7: Correlations with accumulated trust on the country-level (across sectors)

Variables	Trust in national regulators
Legal Transparency Index	0.0452
Informational Transparency	-0.0171
Active Transparency	0.1506
Legal Accountability Index	0.1033
Accountability Executive	0.1669
Accountability Legislative	0.2746*
Legal Participation Index	0.1314
Legal Inclusiveness Index	-0.0555
Agency inclusiveness	0.0174
Managing board inclusiveness	0.0934
Advisory board inclusiveness	0.0299
Managerial Autonomy Index	0.0132
Political Independence Index	-0.1915



Table 7 displays the correlations between the six legal indexes and their subdimensions and trust in regulators aggregated at the country-level. Most of the correlations are of negligible size. However, there is a moderately strong correlation between accountability to the legislative and trust in regulators (0.2746). The other indicators that indicate a weak correlation with trust in regulators are active transparency (0.1506), accountability (0.1033), accountability to the executive (0.1669), participation (0.1314) and independence (-0.1915). The latter is negatively correlated with trust, which is an interesting finding. However, this should be taken with a grain of salt due to the small size of the sample.



5. Conclusions

The objective of this study was to examine the relationship between the formal design of regulatory bodies and the levels of trust by actors in the regulatory regime. To do this, we focused on six core characteristics of regulatory bodies: transparency, accountability, participation, inclusiveness, political independence, and managerial autonomy. In particular, we measured the extent to which regulatory bodies fulfil these core characteristics by examining current legal stipulations that regulate their activities. In addition, and with the aim to measure the levels of trust of relevant actors in the regulatory regime and their bodies, we used the "Large multi-actor, multilevel and multi-sector, and cross-country survey" of the TiGRE project (Bach and Gaspers, 2021).

The first part of this report focuses on the analysis of the level of legal transparency, accountability, participation, inclusiveness, political independence, and managerial autonomy in the 35 bodies included in our dataset. We find that transparency, inclusiveness, participation, and accountability score lower than political independence and managerial autonomy. Specifically, participation has the lowest score among the dimensions, and managerial autonomy has the highest. Taking all dimensions into account, our findings also show that the food safety sector has the fewest legal obligations, and the data protection sector has the most. When we compare the countries, we see that regulatory bodies in Germany have the most minimal legal obligation for all dimensions. Israel is also among the countries with the most minimal legal obligations for these dimensions. However, interestingly, Israel has the highest score of managerial autonomy. Regulatory bodies in Denmark, Spain (including Catalonia) and the EU have a high degree of legal obligations for the six dimensions.

When we compare these dimensions between levels of organisations (EU, national and regional), no significant variance for managerial autonomy is found. However, accountability, participation and transparency, is much higher for the EU than for national and regional bodies.

Finally, when we compare the regulatory bodies in our dataset according to their organisational type, we can see that agencies have much higher legal obligations for the six dimensions and ministries have less obligations. Managerial autonomy is the only case where agencies and ministries score almost the same, where agencies have slightly less obligations.

In the second part of this report, our analysis suggests that legal requirements are not strongly correlated with the levels of trust either in the regulatory regime, or else, in regulatory agencies. For example, when we examined the relationship between the question on whether citizens can be confident in the regulation of each sector and each one of the six legal dimensions, the correlation analyses show that there is no clear correlation pattern among them. We obtained similar results as for the relationship between trust/distrust in regulatory bodies and the legal dimensions investigated. All in all, our analysis found wider variation in some countries across policy fields. For example, while in Spain the relationship between legal transparency and trust differs across sectors, the correlation patterns in Germany seem to be more similar. This observation requires further research at the national level, with the aim to explain such differences or similarities across sectors.

Our results also indicated a positive correlation between accountability towards the legislative branch and the level of trust in national regulators. This finding is interesting, as it suggests that more direct mechanisms of control, those conducted by political representatives, are more likely to generate trust in the regulatory regime. This finding is also in line with previous literature on accountability and legislative control, which argues that legislators are more likely to include accountability and control mechanisms by stakeholders' allies (Kelemen 2002; Kelemen & Tarrant, 2011; Thatcher & Stone Sweet, 2002). Hence, this involvement of stakeholders is more likely to improve the levels of trust by the regulatees.

Our results also show a negative correlation between political independence and trust in national regulators. This finding is interesting due to its counterintuitive nature. That is, seminal studies on regulation have suggested that regulations have been designed as independent bodies with the aim to improve their



reliability and credibility. However, our descriptive analysis suggests that this relation is, at least, not straightforward. Hence, further research is needed to identify whether such correlation persists when we include other covariates.

In addition, since this study is focused on legal provisions of regulatory bodies, further analysis is needed on the relationship between trust and de facto characteristics of regulatory bodies (de facto levels of accountability, transparency, inclusiveness, participation, independence, and autonomy), as possible differences can be of great interest. Further analysis will also benefit from the inclusion of other variables, at the individual level (i.e., characteristics of the survey respondents, that is, attributes of relevant actors), as well as by including other variables at the macro-level, such as contextual characteristics of the countries and sectors examined.



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Annexes

Annex A: Normalisation of Indicators

Table A1: Normalised Transparency Indicators

Indicator	Code		nal Categories Values	Normalised Categories and Values		
Var-6. Information on agency personnel	person_info_for	0	No	0	No	
		1	Basic level – managerial level and board	0.2	Basic level – managerial level and board	
		2	Basic level – agency personnel	0.4	Basic level – agency personnel	
		3	Mixed	0.6	Mixed	
		4	Advanced level - managerial level and board	0.8	Advanced level - managerial level and board	
		5	Advanced level – agency personnel	1	Advanced level – agency personnel	
/ar-11. Disclose minutes or resolutions of managing board	manag_board_min_for	0	No	0	No	
		1	Resolutions only	0.33	Resolutions only	
		2	Minutes	0.66	Minutes	
		3	Recorded managing board meetings	1	Recorded managing board meetings	
/ar-12. Disclose minutes or resolutions of advisory board/ stakeholder group/scientific committee	advis_board_min_for	0	No	0	No	
		1	Resolutions only	0.33	Resolutions only	
		2	Minutes	0.66	Minutes	
		3	Recorded managing board meetings	1	Recorded managing board meetings	
<mark>/ar-13.</mark> Publishing the strategic plans	stratategic_rep_def_	0	no	0	No plans in the website	
		1	Yes -If a current plan is available	1	If a current plan is available	
		2	Other - If there is only an outdated plan	0,5	If there is only an outdated plan	
Var-14. Publishing the activity report	activ_rep_def	0	No	0	No report in the website	



		1	If the report refers to the last or the previous year	1	If the report refers to the last or the previous year
		2	If there are only outdated activity reports	0,5	If there are only outdated activity reports
Var-15. Publishing the financial report	finan_rep_def	0	No	No report in the website0	
		1	If the report refers to the last or the previous year	1	If the report refers to the last or the previous year
		2	If there is only outdated financial reports	0,5	If there is only outdated financial reports
		3	Partial	0,75	If the report is within the activity report
Var-18. Publishing info on Agency personnel	Person_info_def	0	No	0	
		1	Basic level - managerial level and board. Only names of the board and/or managerial level	0,25	
		2	Basic level – agency personnel. Only names of the agency personnel	0,50	
		3	Mixed. Additional information on managerial board/level and only names for personnel	0,75	
		4	Advanced level - managerial level and board. Additional information and curriculum of the board and/or managerial level	1	
		5	Advanced level – agency personnel. Additional information and curriculum of the agency personnel	1	
Var 26 Publishing minutes of a managing board	manag_board_min_def	0	No	1	
		1	Partial transcripts	0,5	



		2	Full transcripts	0,75	
		3	Partial record	0,75	
		4	Full record	1	
Var 27 Publishing minutes of advisory board/stakeholder group	advis_board_min_def	0	No	1	
		1	Partial transcripts	0,5	
		2	Full transcripts	0,75	
		3	Partial record	0,75	
		4	Full record	1	
		1	Partially, some cases	0,5	
		2	Complete, for most regulation	1	
Var29 Provide explanations to regulations	Just_reg	0	No	0	No
		1	Partially, some cases	0,5	Partially, some cases
		2	Complete, for most regulation	1	Complete, for most regulation
Provide explanations to decisions	Just_dec	0	No	0	No
		1	Partially, some cases	0,5	Partially, some cases
		2	Complete, for most regulation	1	Complete, for most regulation
Var30 Use of Social Platforms	Soci_plat	0	None	0	Note
		1	Twitter	0,25	One network
		2	Facebook	0,5	Two networks
		3	You Tube	0,75	Three networks
		4	Instagram	1	Four/Five networks
		5	LinkedIn		



Table A2: Normalised Participation Indicators

Indicator	Code		inal Categories Values	Normalised Categories and Values		
Var-31. Consultations on enforcement decisions	hearing_for	0	0 No		No	
		1	Only to the regulatees/party of interest	0.33	Only to the regulatees/party of interest	
		2	Also to organised interest groups (business and consumer)	0.66	Also to organised interest groups (business and consumer)	
		3	Open to all actors and the public	1	Open to all actors and the public	
		4	Other	-	Recoded as fit	
Var-32. Performing qualitative practices that include external actors in the decision-making.	quali_for	0	No	0	No	
		1	Only to the regulatees/party of interest	0.33	Only to the regulatees/party of interest	
		2	Also to organised interest groups (business and consumer)	0.66	Also to organised interest groups (business and consumer)	
		3	Open to all actors and the public	1	Open to all actors and the public	
		4	Other	-	Recoded as fit	
Var-33. Performing quantitative practices that include external actors in the decision-making.	quanti_for	0	No	0	No	
		1	Only to the regulatees/party of interest	0.33	Only to the regulatees/party of interest	
		2	Also to organised interest groups (business and consumer)	0.66	Also to organised interest groups (business and consumer)	
		3	Open to all actors and the public	1	Open to all actors and the public	
		4	Other	-	Recoded as fit	
Var-34. Consultations on regulations	propos_for	0	No	0	No	
		1	Only to the regulatees/party of interest	0.33	Only to the regulatees/party of interest	



		2	Also to organised interest groups (business and consumer)	0.66	Also to organised interest groups (business and consumer)
		3	Open to all actors and the public	1	Open to all actors and the public
		4	Other	-	Recoded as fit
Var. 35. To have open board meetings	open_board_for	0	No	0	No
		1	Only to the regulatees/party of interest	0.33	Only to the regulatees/party of interest
		2	Also to organised interest groups (business and consumer)	0.66	Also to organised interest groups (business and consumer)
		3	Open to all actors and the public	1	Open to all actors and the public
		3	Other	-	Recoded as fit



Table A3: Normalised Inclusiveness Indicators

Indicator	Code	Original Categories and Values		Norma	llised Categories Ilues
Var-41. Language usage	lang_use	0	No	0	No
		1	Yes, a general obligation for all information on website	0.5	Partial, only for some of the information
		2	Partial, only for some of the information	1	Yes, a general obligation for all information on website
Var- 43. Non-discrimination rules regarding minorities regarding appointment	No_dis_mino	0	no	0	no
		1	Yes, for board members	0,5	Yes, for board members
		2	Yes- general for the agency employees	1	Yes- general for the agency employees
Var- 44. Non-discrimination rules regarding gender regarding appointment	No_dis_gen	0	No	0	No
		1	Yes, for board members	0.5	Yes, for board members
		2	Yes- general for the agency employees	1	Yes- general for the agency employees
Var 62	Lang_def	0	The agency website has no information in more than one language	0	The agency website has no info in this language
Idem for the four-language able to code		1	Only in the main website	0,33	
		2	Plus official documents	0,66	
		3	Extensively	1	



Table A4: Normalised Accountability Indicators

Indicator	Code	_	nal Categories Values	Normalised Categories and Values		
Var-66. Obligation to submit a strategic plan to the legislative	parl_plan_for	0	No	0	No	
		1	Yes - information only	0.5	Yes - information only	
		2	Yes- approval	1	Yes- approval	
Var-69. Obligation to report the actions of the agency on an ad-hoc basis to the legislative	parl_adhoc_for	0	No	No, 1	adhoc_forWRITTEN:	
		1	Yes - hearings			
		2	Yes - written			
Var-70. Obligation to submit a strategic plan to the executive	exec_plan_for	0	No	0	No	
		1	Yes - information only	0.5	Yes - information only	
		2	Yes- approval	1	Yes- approval	
Var-73. Obligation to report the actions of the agency on an ad-hoc basis to the executive	exec_adhoc_for	0	No	No, 1	adhoc_forWRITTEN:	
		1	Yes - hearings			
		2	Yes - written			



Table A5: Normalised Political Independence Indicators

Indicator	Code		Original categories and values		Normalised Categories and Values		
Var-81 Agency board membership professional requirement	bo_req	0	No	0	No		
		1	Yes	1	Yes		
Var-82. Agency head professional requirement	hed_red	0	No	0	No		
		1	Yes	1	Yes		
Var-83. Agency board term of office	mb_term	0 re	or to 6 fers to the non- tence of fixed term		riginal value is divided > 6, keep 1)		
Var-84. Agency head term of office	he_term	0 re	or: 0 to 6 fers to the non- tence of fixed term		riginal value is divided > 6, keep 1)		
Var-85. Agency board membership appointment	mb_ap	1	Board	0	Minister		
		2	Legislative-Executive	0,25	President		
		3	Legislative only	0,50	Executive Collectively		
		4	Executive Collectively	0,75	Legislative-Executive		
		5	President	0,90	Legislative only		
		6	Minister	1	Board		
		7	Other				
Var-86. Agency board membership dismissal	mb_dis	1	Not possible	0	No provision		
		2	Only for non-policy reasons	0,5	Related to political changes;		
		3	Related to political changes;	1	Only for non-policy reasons		
		4	No provision reason.	1	Not possible		
Var-87 Agency board membership renewal	mb_ren	1	Not possible	0	Possible, but not defined/Not limited		
		2	Once	0,5	More than once		
		3	More than once	0,75	Once		
		4	Possible, but not defined/Not limited	1	Not possible		
Var-88. Agency head appointment	head_app	1	Board	0	Minister		
		2	Legislative-Executive	0,25	President		
		3	Legislative only	0,50	Executive Collectively		



		4	Executive Collectively	0,75	Legislative-Executive
		5	President	0,90	Legislative only
		6	Minister	1	Board
		7	Other		
Var-89. Agency head dismissal	head_dis	1	Not possible	0	No provision reason.
		2	Only for non-policy reasons	0,5	Related to political changes;
		3	Related to political changes;	1	Only for non-policy reasons
		4	No provision reason.	1	Not possible
Var-90. Agency head renewal	head_ren	1	Not possible	0	Possible, but not defined/Not limited
		2	Once	0,5	More than once
		3	More than once	0,75	Once
		4	Possible, but not defined/Not limited	1	Not possible
Var-91 Holding offices in government	hold_of	1	Not allowed	0	Required for all members.
		2	Not specific provisions	0,25	Required for some members
		3	Required for some members	0,50	Not specific provisions
		4	Required for all members.	1	Not allowed

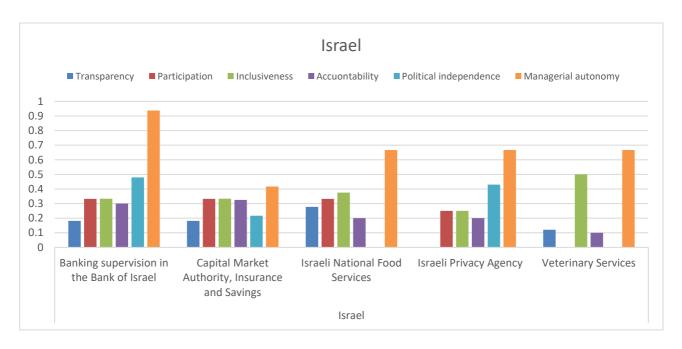


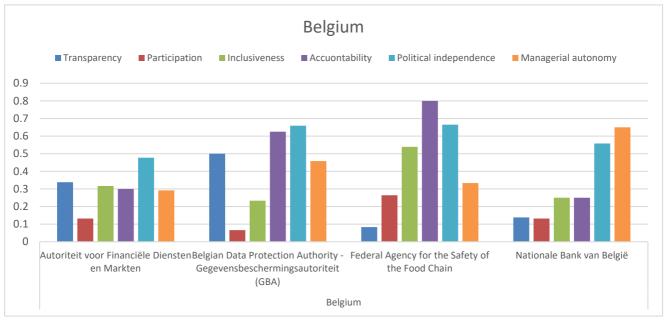
Table A6: Normalised Managerial Autonomy Indicators

Indicator	Code	Original ca values	tegories and	Normalised Categories and Values		
Var-92 Budget approval	bud_ap	1	Agency	0	Ministry	
		2	Parliament	0,5	Parliament	
		3	Ministry	1	Agency	
		4	Other			
Var.93 Budget control	bud_con	1	Agency	0	Ministry	
		2	Parliament	0,5	Parliament	
		3	Ministry	0,75	Separate accounting office	
		4	Separate accounting office	1	Agency	
		5	Other			
Var-94. Budget income	bud_inc	1	Regulated firms	0	Ministerial budget	
		2	Regulated firms and public budget	0,5	Only public budget	
		3	Only public budget	0,75	Regulated firms and public budget	
		4	Ministerial budget.	1	Regulated firms	
Var.95 Organisational structure	org_struc	1	Agency	0	Government	
		2	Agency and the government	0,5	Agency and the government	
		3	Government	1	Agency	
Var-96. Personal status	pers_sta	1	Public servants/functio naries	0	Public servants/functionaries	
		2	Employees under public regulation	0,5	Employees under public regulation	
		3	Employees under private regulation	1	Employees under private regulation	
Var-97. Personnel policy	pers_pol	1	Agency	0	Government	
		2	Agency and the government	0,5	Agency and the government	
		3	Government	1	Agency	



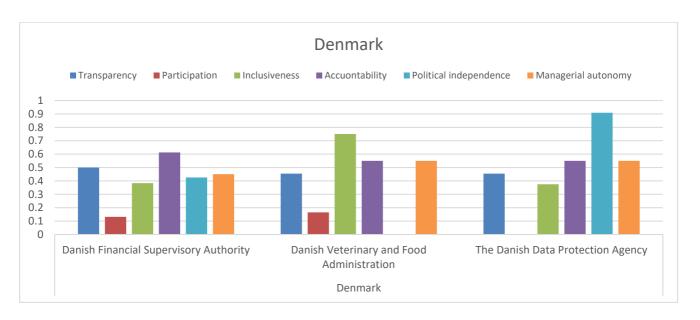
Annex B: Dimensions' score per Country

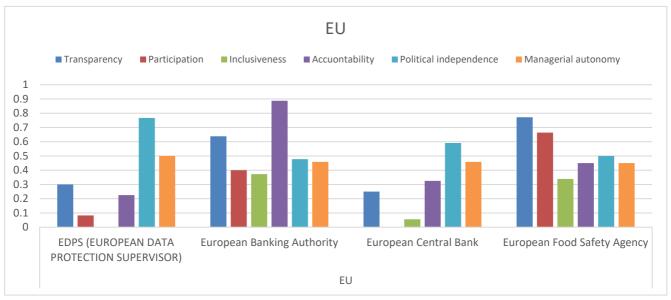




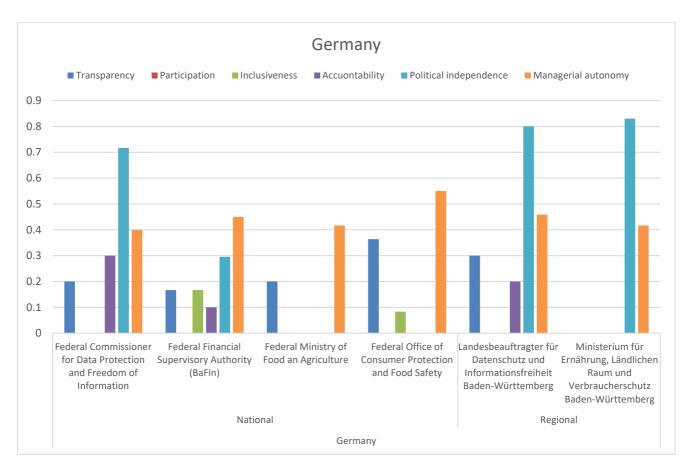


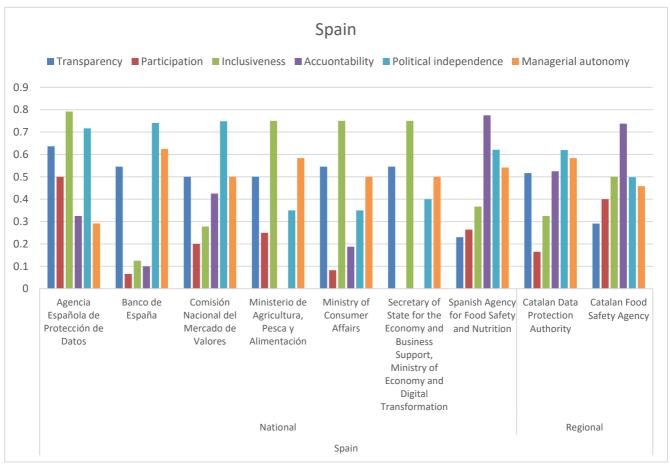
Deliverable D4.3













Deliverable D4.3

