STIP Compass: A tool for continuous monitoring and analysis of STI policies

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STIP Compass was launched in April 2018 as a joint EC-OECD STI policy monitoring tool. It has met since then with significant success in terms of use. Further investments have been made and are planned to improve the relevance and quality of the database, together with the capabilities for analysis offered by its interfaces. This document describes current activities and plans for STIP Compass, providing a quality assessment of the database of policy initiatives following a set of data curation activities carried out by the OECD Secretariat. It also introduces a new policy-monitoring tool designed to help delegates i) keep their data up-to-date; and ii) raise the quality of their data as appropriate.

Contacts: Andrés BARRENECHE (Andres.Barreneche@oecd.org); Sylvain FRACCOLA (Sylvain.Fraccola@oecd.org); Michael KEENAN (Michael.Keenan@oecd.org); Dmitry PLEKhanov (Dmitry.Plekhanov@oecd.org); Blandine SERVE (Blandine.Serve@oecd.org)

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1. Introduction

   1. STIP Compass was launched on 28 April 2018 in Brussels as the new home for the database resulting from the EC-OECD STI survey [DSTI/STP(2017)24]; [DSTI/STP(2018)1]. This portal is an outcome of an ongoing collaboration with the OECD Secretariat and the European Commission (EC), aiming to collect in one place qualitative and quantitative data on national trends in STI policy. The portal supports the continuous monitoring and analysis of countries’ STI policies and aims to become a central platform for policy research and advice supporting government officials, analysts and scholars. It leverages a new generation semantic platform to store, interlink and deliver information on over 6,000 policy initiatives from 56 countries/territories.

   2. This document describes current activities and plans for STIP Compass. It is structured as follows. Section 2 provides an overview of user traffic to the portal following its launch, together with a view on planned activities for STIP Compass during 2018-20. Section 3 reports on the curation work performed on the STIP database by the OECD Secretariat and gives an assessment of the database’s quality in its present state. Finally, Section 4 presents the new monitoring tool that should be used by National Contact Points (NCPs) to the EC-OECD STIP Survey, delegates and other country respondents to update and improve the reporting of country policy data.

2. Planned activities for a more visible and useful database

   3. STIP Compass has been publicly accessible at stip.oecd.org since late March 2018. To provide a sense of the portal’s visibility, Figure 1 shows the number of pages viewed by users accessing it between 2 April and 23 September 2018. The figure distinguishes internal OECD traffic from external traffic. It shows that users browsed the site intensively around the time STIP Compass was officially launched in Brussels. Other spikes in pageviews may be explained by presentations of the project, as well as promotional videos broadcasted via twitter and other communication channels.

   4. During the mentioned time-period, the site has registered over 8,000 non-OECD pageviews from 1,500 unique users, which look at the site for 4.5 minutes on average per visit. Compared to the previous dissemination portal hosting the STIP database, STIP Compass has been more visible in its first months: during April-July the former had around

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1 Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

2 The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

3 A visit is defined as an event in which a given user accesses and browses the site.
150 non-OECD monthly visits, while the new portal saw on average 460 visits per month. In the coming weeks, curated initiatives (see Section 3.1) will be indexed by Google, allowing them to appear in that search engine and bringing considerable additional traffic to the portal.5

Figure 1. Weekly pageviews of STIP Compass between 1 April and 22 September 2018

Source: Data retrieved from Google Analytics.

5. The OECD Secretariat’s work on STIP Compass during 2018-20 will focus on six main areas (Table 1), as described in the subsections that follow. It has two main work streams. In a first stream, the focus is on strengthening the foundations built so far – by raising data quality, linking to a wider variety of complementary data, deepening and extending taxonomies, and developing further dashboards. In a second stream, the focus is on conducting more advanced analyses of the STIP Compass data and developing new information services, such as decision-support tools, to bring users on semantically-guided, problem-oriented journeys of the data.

Table 1. Planned areas of work for STIP Compass during 2018-20

<table>
<thead>
<tr>
<th>Work stream</th>
<th>Activity</th>
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<td>Raise data quality in the STIP database</td>
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<td></td>
<td>Integrate STIP database with linked data</td>
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<td>Taxonomy development to support data discovery and analysis</td>
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<td>Enhance the graphical user interfaces</td>
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<td>Administer the 2019 EC-OECD STIP Survey</td>
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4 During the four months preceding the launch of STIP Compass, the previous dissemination portal had an average of 170 visits per month.

5 During 1 April and 22 September, the Innovation Policy Platform (IPP) had over 245,000 pageviews (within and outside OECD), from 125,000 unique users which browse the site for 1.5 minutes on average. About 76% of visitors arrive to the IPP via Google after querying for various topics related to innovation policy. Thus, the audience of STIP Compass is expected to increase once curated initiatives are indexed in Google.
2.1 Strengthening the foundations

6. The activity with highest priority is to raise the quality of the STIP database so that policy makers and analysts consider it a reliable open source of harmonised data on countries’ STI policies on which to find information and conduct analysis. A simplified survey and a new online survey tool mean the country data in the STIP database is better than it ever has been. Still, several problems remain: some policy initiatives that should be in the database are completely missing; mandatory fields are frequently left blank; descriptive texts are often very light and provide an insufficient sense of what the policy initiative is about and are a weak basis for semantic enrichment; and countries vary in their interpretations of some of the survey questions, assigning different types of policy initiatives to them. These problems weaken the comparability of countries’ policy initiatives for analysis and undermine the fledgling reputation of STIP Compass as a single open source of complete and accurate information on countries’ STI policies. Later sections of this document report on recent curation work performed by the OECD Secretariat and presents new data collection arrangements aimed at raising data quality. Beyond infrastructure developments, dedicated meetings will be organized to standardise records of policy initiatives. Moreover, peer review mechanism could be established whereby countries comment on one another’s data.

7. The OECD Secretariat plans to continue broadening the information base of STIP Compass beyond the STIP Survey. STIP Compass already links the survey data to other data sources, i.e. academic articles from Elsevier, working papers from the RePEC database, and OECD and EC official publications. These documents are surfaced across relevant dashboards and through the search interface, allowing browsers of STIP Compass access to in-depth analysis of relevant policy issues. Further integrating the STIP database to linked data will increase STIP Compass’s analytical power in many ways, e.g. by providing valuable context to the policy data.

8. In addition, many relevant resources for STI policy analysis are constantly being produced and disseminated by national governments. These include materials such as news items, policy statements, reports and statistics. Having them presented alongside STIP Survey data will provide analysts with complementary information on the most recent arrangements and policies. STIP Compass will therefore integrate and index periodically released (via RSS feeds) national country data and link it with the STIP database. In particular, the OECD Secretariat will identify country organisations responsible for STI policies (e.g. ministries, funding agencies, etc.) that broadcast various types of information (e.g. news, events and reports). These feeds will be linked to the STIP data model, ensuring national country data is automatically and periodically retrieved and referred to in relevant places across the STIP database.

9. Besides these qualitative resources, STIP Compass will also integrate quantitative country indicators relevant to STI policy. Linking statistical data will provide valuable context to STIP Survey data, allowing analysts to gain a better understanding of the motivations and challenges in which policies have been designed and implemented. This integration will also support smart benchmarking, allowing countries to compare and

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6 In addition to official EC publications on STI, STIP Compass also aims to integrate European Semester Country Reports, RIO Country Reports, Horizon 2020 country information and the RIO library.
contrast their policy profiles with countries with similar features (e.g. industrial structure) or performance (e.g. GERD intensity).

10. The STIP Compass’s current taxonomy is composed of two main components. The first is the policy initiative data model built to structure the database and the 2017 EC-OECD STIP Survey. This includes the STIP themes (questions in the questionnaire classified in policy areas) along with the policy initiative fiche, the policy instruments, target groups and budget ranges. The second component includes a basic alignment of the data model with the IPP tagging vocabulary of around 1300 concepts. This alignment enables the linking of the STIP database with other datasets (e.g. academic articles and OECD and EC publications). The OECD Secretariat will build upon this work and conduct further taxonomy development to support data discovery and analysis. This includes a revision of and optimisation of the data model in preparation of the 2019 edition of the STIP Survey. The 2017 EC-OECD STIP Survey was designed to be durable, meaning few changes are expected in its structure and core questions in future editions. However, there will be some fine-tuning to improve its design and to accommodate reporting needs that have not been accounted for (e.g. specific types of policy instruments). Section 3.1 below includes a check for frequent misreporting of initiatives suggesting the need to revise a question and/or its explanatory text.

11. Further work in this line of activity includes converting the IPP tagging vocabulary into a more full-fledged innovation policy taxonomy. This involves the introduction of hierarchical relations that describe the STI policy field and will progressively introduce ontological relations (causality, functional relations etc.) to align with the various databases linked to STIP Compass. The IPP tagging vocabulary also dates from a few years back and needs to be updated with the latest concepts to reflect the state-of-the-art in STI policy, e.g. thematic areas such as inclusive innovation and digitalisation, which are poorly covered at the moment. The OECD Secretariat will data mine recent OECD and EC flagship publications as well as the STIP database to retrieve frequently used concepts and consider their addition to the vocabulary.

12. The STIP Compass site launched in April is rudimentary in many respects: many features are under-developed or missing and the presentation of the data could be overall improved. Pre-launch versions of the portal were discussed with CSTP, GSF and TIP delegates, which also generated many ideas and suggestions for improvements. Accordingly, during the following months, the STIP Compass portal will see an enhancement of its graphical user interfaces. In particular, the data presented in dashboards need to be made printable, while the fiches showing results, e.g. a description of a policy initiative, are primitive and in need of re-design. In addition, further dashboards will be created dedicated to countries’ main STI policy organisations. Among other things, these will list the policy initiatives for which organisations are responsible (as funders and/or managers) and link to RSS feeds and Twitter accounts maintained by the organisations.

13. There was a major change in data collection methodologies in the 2017 EC-OECD STIP Survey from previous surveys [DSTI/STP(2017)5]. Besides streamlining the survey, the way information is gathered in the survey has been more firmly structured in taxonomies used to characterise the STI policy initiative as the unit of data collection and analysis [DSTI/STP(2018)1]. The 2017 edition was thus an unprecedented step towards the digitalisation of the STIP data. However, the transition to these new arrangements placed a heavy burden on NCPs. Future editions should be much lighter as all existing initiatives and instruments will be prefilled and countries will be more familiar with the online survey tool. Accordingly, administering the 2019 edition of the survey is expected to be less
burdensome than in 2017. While the core parts of the survey should change little from the survey that was distributed in 2017, modules may be added to satisfy specific data needs of the CSTP and its working parties, as well as the EC. Any changes and additions will need to be approved by country delegates. Besides the usual document-based consultation used for past editions of the STIP Survey, the project will organise dedicated sessions in meetings to consult countries on any survey changes and additions. The biennial EC-OECD STI Policy survey will be sent to around 60 countries in September 2019 with a November 2019 deadline for responses. By entering information on a rolling basis (see Section 4), the burden of the 2019 survey on countries should also be much reduced.

2.2 More advanced analyses of STIP Compass data

14. STIP Compass should enable useful analysis that supports ongoing projects from CSTP and its working parties. This alignment will leverage the frameworks, resources and findings of these existing projects to improve data quality and to develop taxonomies and ontologies that better support user queries of STIP Compass.

15. One area for thematic alignment will centre on research funding policy. The OECD Secretariat aims to provide analytical resources and a decision-support tool useful to policy makers when dealing with policy issues, such as reforms of funding instruments, introduction of initiatives to fulfil additional demands or to cope with new challenges, negotiations with other government bodies including finance ministries, etc. The policy debates in this area have been increasingly knowledge-demanding as expectations on research funding have risen (in terms of research excellence and directed impact but also accountability and transparency) and available budgets have become more restricted in many countries. At the same time, relevant data to systematically inform these debates are still scarce and existing conceptual frameworks imperfectly capture the changing reality of evolving funding systems. This thematic area will benefit from projects to be carried out by the CSTP and the GSF in the 2019-20 biennium.

16. Another area for thematic alignment focuses on knowledge transfer policy. Here, developing better conceptual frameworks and analytical tools for policy makers is also important in the face of a fast-changing innovation environment. The OECD Secretariat will develop a pilot experimental policy support tool on STIP Compass to help guide users to better understand the trade-offs and synergies in the knowledge transfer policy choices countries adopt. This thematic area will link to the work conducted by the OECD TIP working party in the 2019-20 biennium, and previous OECD work on this topic.

17. Both topics will require the development of specific taxonomies-ontologies and the policy support tools will be built based on conceptual frameworks and with continuous inputs from OECD country delegates from the respective working parties. For instance, detailed policy information on knowledge transfer in the EC-OECD STIP Survey could be linked to case study evidence collected through TIP’s thematic projects. The OECD Secretariat will carry out a significant amount of scoping and testing of the policy support tools, involving both country delegates from the aforementioned working parties and experts convened through relevant projects’ Expert Groups. At present, the following ideas are being considered as decision-support tools:

- **Smart catalogues of instruments:** Based on the conceptual framework and the results of the case studies, a structured pool of knowledge on instruments and their design ‘facets’ could be developed. This would include, for the various instruments, their different practical modalities,
their main objectives and the primary and secondary challenges to which they aim to respond, the different targeted communities of beneficiaries and stakeholders (operators, intermediaries, experts, etc.), and so on. The inventory would draw knowledge from different sources on each of the different policy instruments and their practical implementation in different contexts. For each type of policy instrument, a synthesis of the analytical literature will be developed to provide the state of the art of knowledge, using the academic and grey literature, as well as available evaluations.

- **Structured policy toolkits:**

These could showcase various policy objectives around the thematic area and describe the characteristics and interactions of initiatives aiming to address them. The guidance offered by the tool could focus on two main dimensions: First, the support tool would indicate complementarities and possible areas of conflict between policies and show specific examples of policy approaches, drawing on case study materials. Second, the tool would also describe country characteristics (such as industrial structure, performance in key statistical indicators, etc.) and how they relate to specific policy choices.

18. These decision-support tools will be linked to relevant initiatives in STIP Compass so that users can consult examples of actual policies implemented in various countries. This will provide new ways to navigate and search in STIP Compass, using advanced visualisation techniques to display in a dynamic way the relationships between the different policy options, their design variants/facets, and the lessons learned drawn from their implementation in different contexts.

3. **Assessment of the quality of the STIP database**

19. The data collection and dissemination infrastructure has undergone significant improvements, providing a strong basis for STIP Compass to become the leading repository for national STI policies. However, the portal will only be as good as its data. The remaining parts of this document are thus devoted to assessing and improving the quality of the STIP database. This section provides an update of data curation activities performed by the OECD Secretariat. This is followed by a description of the STIP database in its present state, identifying the most pressing areas requiring improvements.

3.1 **Curation work**

20. Following the 2017 STIP Survey, the OECD Secretariat has curated in the last couple of months 4,016 policy initiatives submitted with all mandatory fields. This first round of curation work had the following objectives:

- Ensure basic textual fields (i.e. name in English, short description, objective(s) and background) provide a good sense of what the initiative is about.
- Verify that initiatives are assigned to the correct policy themes.
- Filter out initiatives’ public access and evaluation URLs resulting in errors.
- Eliminate duplication of initiatives and standardise the use of textual fields (e.g. move acronyms and responsible organisations out of the name of the initiative).

21. As a result of this process, 1,156 policy initiatives were assigned to one or more new policy themes, whereas 570 initiatives had one or more themes removed. After this
reclassification, 130 initiatives had no policy theme assigned and will be reviewed for deletion from the database. This set includes duplicate initiatives and others that fall outside of the STIP database’s scope. Examples of the latter include generic schemes for procurement and export promotion, which do not have a clear link with STI policy issues. To account for the possibility that such a link exists but was not mentioned explicitly in the text fields, such initiatives were left in the database as incomplete initiatives\(^7\) for country respondents to review them if needed. Other entries do not fall within the definition of policy initiatives, such as STI ministries, programmes launched by the private sector and graduate schools or master’s programmes. While guidance on what constitutes a policy initiative is available and has been recurrently communicated, the OECD Secretariat will devote additional efforts in order to harmonise reporting.

22. Policy themes under which initiatives were frequently misclassified suggest that the corresponding question from the EC-OECD STIP Survey needs to be reviewed. Figure 2 shows the top 10 policy themes with the most initiatives removed from the questionnaire. Many of these relate to the business dimension of STI. “Targeted support to SMEs” and “Targeted support to young innovative enterprises” are particularly problematic, given that respondents often reported in these question initiatives in which those types of firms participate (instead of initiatives dedicated to them). “Foreign direct investment” saw several non-STI related initiatives reported.

**Figure 2. Top 10 policy themes with most initiatives removed in the data curation**

![Figure 2](image)


23. Using the data reported in the 2017 survey and leveraging information available online, OECD analysts often linked initiatives with other policy themes. Figure 3 shows the top 20 themes with most initiatives added. The large numbers of initiatives linked suggest that country respondents often do not report initiatives in several policy themes. Indeed, the data curation process revealed that a large portion of initiatives was assigned to a single theme, although objectives of the initiatives explicitly relate to several themes.

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\(^7\) See page 18 on how incomplete initiatives can be filtered using the monitoring tool.
24. Despite efforts from the OECD Secretariat to fill gaps identified in policy initiatives, in some instances this was not possible given the limited amount of information submitted, together with the fact that no additional information was found available online. Figure 4 shows, for each country, the number of curated initiatives that require actions from country respondents. These include initiatives that lack clarity in the mandatory basic textual fields (name in English, short description and objective(s)) or provide a very limited amount of information that do not allow a basic understanding the initiative. In addition, a handful of initiatives are excessively broad in scope and need to be split into multiple ones to increase granularity of information. For each country, the names of initiatives that require additional actions can be found in [DSTI/STP(2018)8/ANN] (Annex A).

25. Following the data curation process, the OECD Secretariat has the following recommendations for NCPs and other country respondents when submitting data on policy initiatives (Figure 5):

- Country respondents should further adapt reporting to the new online survey tool. Every policy initiative in the survey should be seen as a stand-alone entry in the database, therefore cross-referencing to other initiatives in the survey by indicating “see above” and “the same” in text fields should be avoided.

- When indicating a URL for an initiative, survey respondents should refrain from adding additional text that is not part of the URL. Only the working web link should be included.

- Multiple objectives should be reported using the separate fields and not provided in bulk within one field.

An initiative’s “short description” should be distinct from its policy objective. The former should answer the “what”, whereas the former should focus on the “why”.

**Figure 5. Screenshot of an empty policy initiative fiche in the online survey tool**

### 3.2 Status of the 2017 STIP database

26. The changes in the data collection methodology mentioned above have made responses provided by countries to the survey more comparable, facilitating analysis. This new structure makes STIP Compass a key repository of evidence on national policies for the STI Outlook and other projects of CSTP and its working parties. Despite this progress, several efforts are still required to improve reporting and raising the quality of the data in the STIP database, as described below.

27. Responses submitted to the survey vary significantly in quality, detail and style depending on the country/territory. In terms of quantity, Figure 6 shows that Australia has the highest number of initiatives (219) in the STIP database, followed by Austria (203), Italy (197) and Spain (175). By contrast, others have only a few initiatives, such as Egypt (19), Iceland (21), the United States (24) and Belgium – Federal Government (31). Moreover, the completeness of data varies extensively. Several countries have provided mostly incomplete information, i.e. initiative without all mandatory fields filled in. Indonesia, Malaysia, Romania and Belgium – Wallonia only have incomplete initiatives in the STIP database. Italy has a large number of entries but most of these (97%) are incomplete. Other countries having reported incomplete initiatives for the largest part

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8 For a given policy initiative, the mandatory fields that need to be filled in are: Name in English, short description, objective(s), type(s) of policy instrument, direct beneficiaries (target groups), name of responsible organisation and estimated budget per year (range in EUR or amount in national currency). When an initiative has data for all of these fields it is referred as a “complete” initiative, as opposed to those that do not, which are regarded as “incomplete”.

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Unclassified
include South Africa (99%), Slovakia (97%) and Egypt (95%). As shown in Figure 6, however, most countries have only a few incomplete initiatives. Only four respondents participating in the 2017 EC-OECD STIP Survey submitted 100% initiatives with all required information, namely Colombia, Costa Rica, the European Union and Slovenia.

Figure 6. Number of policy initiatives submitted to the STIP database (with and without complete information), by country


28. Figure 7 indicates the types of data survey respondents are having the most difficulties in providing. Survey participants experienced the biggest challenges completing fields introduced by the new taxonomies, which could not be prefilled from the 2016 EC-OECD STIP Survey, i.e. those prompting information on policy instruments, direct beneficiaries (target groups), name of responsible organisation and estimated budget. These fields required the most effort from country respondents. For instance, submission of data on policy instruments (e.g. grants for business R&D and innovation) requires the respondent to be quite well familiarised with the initiative in question, i.e. knowing details such as their scope, implementation and in several cases funding criteria. While these fields placed additional burden on countries updating initiatives reported in the 2016 survey, these
Data are necessary to embed the initiative with basic information required to make it comparable across others in the database. STIP Compass uses these fields to generate visualisations and list results in the policy explorer. The advanced analytical tools highlighted in Section 2.2 will also make use of these data. In the future, country respondents will only have to submit such information for new initiatives, which should be more manageable.

Figure 7. Share of incomplete initiatives having data for mandatory fields


29. Figure 8 shows the percentage of complete initiatives having data for non-mandatory fields. While mandatory fields provide basic information describing STI policy initiatives, the survey also prompts respondents for supplementary fields that are worth registering in the database when available. For instance, users may query STIP Compass for specific policy initiatives using their names in the language of origin and their acronym; about 56% of complete initiatives have data for the former and 38% for the latter. The “start date” allows knowing when the initiative was first introduced and, together with “end date” are key pieces of information to build a time-series out of the STIP database. Most initiatives (83%) have a start date but only 25% have an end date. It is natural that fewer initiatives have less data for the latter, given that many have not ceased and their future end dates may be uncertain.

30. About 64% of complete initiatives includes some description of its background and shifts in policy. This provides a valuable context to the initiative, which is highly specific to the country and time in which it was introduced; such information goes beyond what taxonomies can capture and can be semantically enriched, which will improve search and linking in STIP Compass’s policy explorer. More than half of initiatives (57%) contain internet links that users can publicly access to gather additional information. Only a few initiatives (5%) have links to evaluations (often PDF documents). In the future, it will be important to gather more data on evaluation in order to explore possibilities for impact assessment within STIP Compass.
Figure 8. Share of complete initiatives having data for non-mandatory fields


31. While data for non-mandatory fields would be of value, country respondents should prioritise efforts on gathering information on the estimated yearly budgets associated to initiatives.\(^9\) While the number of initiatives dedicated to a theme or target group provides some indication of country efforts, data on budgets is required for a better understanding.\(^10\) Figure 9 shows how countries vary in their reporting of estimated budget in initiatives.

Initiatives without data reflect fields left blank or when the budget was reported as “unknown”.\(^11\) Some countries have been diligent in reporting estimated budgets for most of their initiatives, including Lithuania (99%), Slovenia (97%), Latvia (95%), Peru (94%), and Malta (93%). It is worth noting that these countries have more than 50 initiatives in the STIP database (Figure 6), reaching up to 134 in the case of Slovenia. However, the median country in the database reports budgets only on 61% of its initiatives. Countries and territories reporting the largest shares of initiatives with budget as “unknown” include Morocco (80%), Belgium - Brussels Capital Region (77%), China (76%) and Turkey (76%).

\(^9\) To indicate an estimated yearly budget, country respondents may either select from a list of ranges in EUR or indicate an amount using the national currency. Respondents may refer to how much was allocated for the initiative during the previous year to provide an estimate. The option “Not Applicable” is available for initiatives that do not allocate budgets, such as certain national strategies and plans that aim to coordinate activities among ministries and other public bodies.

\(^10\) For example, what meaning should be given to the fact that one country uses twice as many policy initiatives than another to address the same policy theme? Does it mean the countries vary in the policy attention they give to the policy theme? Or does it mean one country is more efficient than the other in addressing the policy theme? Having data on the budgets associated to initiatives would help addressing these questions.

\(^11\) The possibility of reporting a budget as “unknown” is made available to allow countries the opportunity to complete the submission of the initiative and provide budget data at a later stage.
Figure 9. Share of initiatives with budget data (complete and incomplete), by country


32. [DSTI/STP(2018)8/ANN] (Annex B) includes dedicated scorecards, providing various quality benchmarks specific to countries and territories of their current reporting within the STIP database. NCPs and country delegates are asked to examine these scorecards to identify those areas they need to prioritise efforts to improve their country’s data. Overall, the current priorities are for estimated budgets to be reported and for mandatory fields of incomplete initiatives to be completed.

4. Updating the database: New monitoring arrangements

33. The figures described above suggest that there is ample leeway to raise the quality of the data in STIP Compass. Besides finalising incomplete initiatives, another aspect of data quality concerns its timeliness. While the STI policy domain is rarely subject to radical shifts, there is a regular turnover of initiatives, with countries typically reporting 10-20%
of their policy initiatives as new or ceased in the biennial STIP Survey. Since many users are most interested in learning about the latest policy initiatives in countries, capturing the latest changes in real-time would ensure the STIP Compass is reliably up-to-date. This section describes a more distributed data collection arrangement that aims to both raise data quality and enable continuous reporting of policy initiatives. The new monitoring tool will involve delegates from across different OECD committees and working parties, thereby tapping into a wider knowledge pool and conferring greater ownership of STIP Compass among a wider group of government bodies responsible for STI policy.

34. In the mini-survey sent out to delegates to gather feedback on the 2017 edition of the STIP Survey, country delegates gave overwhelming support to the new online questionnaire interface. Despite some technical glitches experienced in the transition to the new system, the online survey has proved to be an effective tool contributing to streamlining workflows and considerably minimising an administrative burden for delegates and other country respondents. The new tool addressed requirements expressed by delegates [DSTI/STP(2017)5], notably by allowing multiple respondents to simultaneously work on the survey and the possibility to link the same initiative to multiple questions. The OECD Secretariat has built on this positive experience, adapting the survey tool into a monitoring tool. In this process, the few technical issues reported by delegates as they completed the 2017 STIP Survey have also been addressed.

Figure 10. The new monitoring tool built on top of the questionnaire interface

35. Figure 10 shows the new monitoring tool, which builds upon the interface used to gather responses to the 2017 STIP Survey. Clicking on the “Tools” icon (enclosed in a circle in the figure) provides access to new features (enclosed in a dashed rectangle in the figure), described below.

- **List of initiatives** switches to a different interface for browsing and editing the initiatives included in the country’s database. While the “questionnaire” interface shown in Figure 10 allows users to update the database using the same interface they have worked with previously, the “list view” may be better suited for managing the database. This view is described in more detail below.

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12 A demo version for testing is accessible using this link: https://stipsurvey.org/997416?token=pJ1zv2gZj7gTAzd. Given that the tool is under development, it may be inaccessible at certain times.
- **Export all initiatives as PDF** generates a PDF document that includes all of the country initiatives’ details.

- **Add user** (available only to NCPs and the OECD Secretariat) allows a new account to be created that an individual may use to access and edit the database. After entering basic information on the person who will have access (name, organisation and email), a dedicated, personal link is associated to the account. This link, composed of a long and complex combination of characters acting as the user’s personal password, is sent together by email with basic instructions on accessing the database. The NCP may also use the interface to provide specific instructions, e.g. on which question(s) the user should focus on.

- **Manage users** (available only to NCPs and the OECD Secretariat) provides options to manage the accounts that have been created for the country’s database, i.e. i) edit users’ basic information; ii) sending an additional email to the user; and, iii) deleting the account. If an account is deleted, the associated link will no longer provide access to the database. Deleting an account does not delete or undo changes that the account has made to the database.

- **Update my account** allows updating the personal basic information (name, organisation and email).

36. Figure 11 depicts the “list view” which is accessed upon clicking the “list of initiatives” button described above. As it name indicates, this interface lists all initiatives in the database, providing a quick view to most important fields, i.e. name in English and in original language, start and end date, name of responsible organisation, estimated budget and internet link(s). It also displays the account authoring the last change to the initiative (i.e. in the “Last name” and “Organisation” fields to the right in the interface) and the date of most recent update (i.e. Date stamp to the left of the interface). It also indicates whether the initiative has been submitted as complete with a green tick mark or if it is incomplete with a red cross (enclosed in an oval in the figure). Users can edit an initiative by clicking on the left-most button in the corresponding row (enclosed in a dashed rectangle in the figure).

37. The vertical arrow in Figure 11 shows a button allowing to return to the classic “questionnaire” interface, together with the other account management options described above. Users can also create new initiatives (see button enclosed by the continuous rectangle in the figure). Users may filter initiatives by entering data in this fields (see dashed arrow in the figure). The list view interface thus allows users to easily identify and edit sets of initiatives that require editing. For instance, users may select incomplete initiatives to be displayed in the interface, show only those having unknown budgets or look for a specific initiative using the ‘name’ field.\(^\text{13}\)

\(^{13}\) Within filtering fields that require typing, note that one has to press the ‘enter’ keyboard key for the filtering to be applied.
38. NCPs will receive an email with their personal access details to the new monitoring tool. This will allow country respondents to address the data quality issues pointed out in Section 3.2 and [DSTI/STP(2018)8/ANN] (Annex B), while also letting them update information on their STI policies on a rolling basis. It will also allow NCPs to more easily monitor and manage inputs of others entering information. Besides displaying authoring information in the interface, the system will generate monthly emails that synthesise updates to country initiatives, with the corresponding account(s) having worked on them. These emails will be sent only to NCPs and the OECD Secretariat.

39. The monitoring tool will allow country delegates from a range of OECD working parties to become further involved in the process of contributing data. The OECD Secretariat will remind country delegates during each CSTP meeting to enter information on new policies into the system as they are launched; the EC plans to do the same at its regular meetings of the European Research Area Committee (ERAC). Moreover, in the context of ongoing OECD and EC projects, committee and working party delegates will be asked to check and upgrade the data on those policy initiatives relevant to their projects. The CSTP and its working parties (TIP, GSF, and BNCT), together with the CIIE, cover virtually all of the questions in the core parts of the survey in their regular work. New inputs to the database will be curated by OECD analysts on a rolling basis.

40. In view of the developments described above, the monitoring tool and STIP Compass could be further embedded in the existing work routines of CSTP and its working parties. In regular meetings, for instance, the OECD Secretariat could present recent updates of the STIP database, including progress on data completion and recent initiatives introduced by countries. Moreover, meetings and workshops that address a specific policy theme could have dedicated sessions providing an overview of the data reported in STIP Compass.
References