

Chapter 2.

Implementing a regional approach to national economic development

This chapter discusses how to implement a regional approach to sectoral and innovation policies. The chapter is divided into four main parts. The first section focuses on assessing regional policies in Peru, including alignment with the contemporary OECD approach to regional policy. The second section discusses macroeconomic policies and their impacts on regions, including an overview of the productive fabric of the country. The third section discusses the importance of integrating sectoral and innovation policies with a regional agenda. Finally, the fourth section draws some conclusions and sums up key recommendations.

Key findings and recommendations

Key findings

- Peru is made up of regions that strongly differ in their performance and growth rates. Although a small number of regions generally contribute disproportionately to growth, previous OECD work on regional growth has shown that there is potential for growth in all regions. Regional level factors yield significant differences in productivity and consequently income levels among regions. Influencing these factors requires a shift towards a “place-based” approach that integrates infrastructure, skills and innovation policies.
- Regional development is an important national policy priority for Peru; however, it would benefit from a shift towards a place-based approach based on regional competitiveness and unlocking growth potential. The concerted regional development plans are an important innovation and provide a platform for strengthening the role of regions in the design and delivery of national sectoral policies. However, these plans do not appear to be effectively linked or integrated with fiscal frameworks.
- Peru’s sectoral and innovation policies have a focus on diversifying the economy and increasing the complexity of the country’s export basket. These are primarily designed and executed at a national level. The rise of global value chains (GVCs), the increasing importance of networks and technological platforms to innovation, and dynamic processes of entrepreneurial self-discovery all point toward the need for a more bottom-up strategy. The smart specialisation strategy currently being implemented by the European Union, combined with new mechanisms to co-ordinate policies and build capability at a subnational level, can provide a platform to develop this place-based approach.

Key recommendations

3. Consider the establishment of more effective and strategic institutional support capacity that can facilitate a partnership-based approach to regional development between departments and the national government. Two strategic options to achieve this outcome are: 1) deconcentrated agencies of the Presidency of the Council of Ministers (PCM) and the Ministry of Economy and Finance (MEF) that can work in partnership at a macro-regional level; and 2) regional development agencies (RDA) that are constituted as a partnership between departments and the national government.
 - developing the skills and technical capacity of regional governments (departments) in areas such as policy development and evaluation, strategic planning, procurement, and project/programme delivery
 - providing support to departments and municipal governments to better integrate strategic plans with fiscal frameworks and investment strategies
 - communicating strategic priorities of the departments to the national government, identifying opportunities for strategic alignment between departments, and ensuring these priorities inform the national budget and planning cycle
 - ensuring that national policies and priorities are considered and reflected in departmental planning
 - co-ordinating investments and programme delivery at a regional and inter-regional scale
 - evaluating and monitoring departmental and municipal level planning to ensure plans are effective and aligned with the national system of strategic planning.

Key findings and recommendations (*continued*)

4. Improve the quality and effectiveness of concerted regional development plans by:
 - ensuring that within the next two years all departments have an endorsed concerted regional development plan.
 - requesting that the regional governor submit the draft concerted regional development plan for consideration and response by the relevant national ministries (co-ordinated by the deconcentrated agency or RDA model)
 - mandating a formal review of the implementation of concerted regional development plans every three years, synchronised with other regions, and which is publicly available (co-ordinated by the deconcentrated agency or RDA model)
 - mandating publicly available annual reporting on progress in implementing the concerted regional development plan by the regional governor (which also includes a summary of the activities and achievements of the regional co-ordination councils)
 - strengthening the economic analysis within these plans, for example, incorporating further analysis of the industry and business structure within regions at the scale of functional economic areas (including at a macro-regional scale), including how regional businesses are integrated with GVCs, and the identification of key bottlenecks and growth opportunities at these scales
 - creating opportunities for policy makers at a departmental level to learn from each other, and good practices nationally and internationally (e.g. through targeted training, and a bi-annual conference on regional planning and investment).
5. Better integrate regional planning with the fiscal framework by:
 - Introducing competitive-based funding programmes that are designed to encourage innovation, infrastructure and skills initiatives at a regional level. Ensure that the criteria for prioritising funding includes demonstrating alignment with concerted regional development plans, and co-contributions from regions, different municipalities, business and other actors.
 - Tasking the National Centre for Strategic Planning (CEPLAN; through the RDA or deconcentrated agency) to work in partnership with departments to identify and prioritise medium-term (three to five years) capital investment programmes in the concerted regional development plans to deliver on strategic priorities in the territory (derived from the national and subnational plans and programmes). Through the RDA the Ministry of Economy and Finances should also contribute to the development of these investment programmes.
 - Including the annual report on progress in implementing the concerted regional development plan in the department's budget and plans, demonstrating alignment with budget instruments.

Introduction

Across the OECD, it is increasingly recognised that regional development policies are a key part of improving aggregate growth performance. There are strong differences in the economic performance between regions and these differences tend to persist over time due to regional factors. These factors can be influenced by integrated and tailored

investments in skills, infrastructure and innovation that are designed to unlock regional growth potential. Tailoring these policy interventions is important because drivers of growth vary between regions depending on their level of development, institutional arrangements, resource endowments, and population size and density. Opportunities for growth exist in all types of regions and these places can be assisted to reach their growth potential endogenously through “place-based” approaches to regional development (OECD, 2011a).

A key element of this contemporary approach to regional policy is enabling the identification and development of new economic activities, which build upon and combine existing strengths. These processes of innovation are generated through facilitating collaboration between businesses, higher and vocational education, and public and private R&D at a regional level. The analysis in this chapter shows that “one-size fits all” national industrial strategies which focus on export sectors are unlikely to succeed due to factors such as the complexity of Peru’s economic geography, and the increasing importance of global value chains (GVCs) to how businesses organise production. Shifting toward this place-based approach to sectoral and innovation policies will require Peru to strengthen co-ordination mechanisms and build governance capability at a subnational level.

Peru already has a planning and institutional architecture that can provide the foundation for this place-based approach. Peru has established a national planning system across levels of government, which includes concerted regional development plans. However, national ministries are not effectively engaged in the design and implementation of these plans, and they are not integrated with the fiscal framework. In addition, there is significant variation in capabilities between regional governments, and a lack of consistency and depth in measures to build these capabilities. There are a range of lessons from across the OECD which Peru can learn from in addressing these issues, some of which build on existing practices such as results-based budgeting. This includes the use of regional development agencies (RDAs) to encourage a partnership-based approach to regional development, and mutually agreed contracts to align budgeting across different levels of government toward shared outcomes.


The OECD regional approach and assessing Peru’s regional policy framework

Peru, like many other countries, is made up of regions that strongly differ in their performance and growth rates. Across the OECD, these differences persist over time, suggesting that regional level factors yield significant differences in productivity and consequently income levels among regions (Garcilazo and Oliveira Martins, 2013). Although a small number of large cities contribute disproportionately to growth, there are many smaller and lagging regions that also make important contributions to national growth. A decomposition of the latter in OECD countries shows that between 1995 and 2007, less-developed regions made a vital contribution to aggregate growth, since they accounted for 43% of aggregate OECD growth. Previous OECD work on regional growth has shown that there is potential for growth in all regions, and that the determinants of growth can be addressed by public policies (OECD, 2009a; 2011a).

This growing body of evidence has been accompanied by a shift in how OECD countries approach regional policies. In the past, these policies tended to focus on addressing disparities between regions through the provision of subsidies to compensate regions for lower incomes. Policies were designed by central governments through departments of state that delivered narrowly defined economic development programmes.

This approach was seen as increasingly ineffective and not sustainable from a fiscal point of view. The new approach to regional policies emphasises a focus on competitiveness and working with regions to unlock growth potential. This approach has significant implications for how government works. Governments need to work in a more integrated way at a regional and local level. This “place-based” approach is outlined in Table 2.1.

Table 2.1. **The paradigm shift in regional policy**

	Traditional regional policies	New paradigm
Objectives	Balancing economic performance by temporary compensation for regional disparities	Tapping underutilised regional potential for competitiveness
Strategies	Sectoral approach	Integrated development projects
Tools	Subsidies and state aid	Soft and hard infrastructure
Actors	Central government	Different levels of government
Unit of analysis	Administrative regions	Functional regions
	 Redistributing from leading to lagging regions	Building competitive regions to bring together actors and targeting key local assets

Source: OECD (2009b), *Regions Matter: Economic Recovery, Innovation and Sustainable Growth*, <http://dx.doi.org/10.1787/9789264076525-en>.

Growth drivers vary across different types of regions, which emphasises the importance of a “place-based” approach

In the OECD as in the entire world economy, a handful of regions (the big “hubs”) account for a disproportionate share of aggregate growth: typically, around 4% of regions generate about one-third of a country’s total growth. The remainder of growth comes from all the other regions combined, which although not contributing much individually, they have a high collective impact (OECD, 2012c). There are two key implications for policy makers of these findings:

1. policy makers are right in being concerned about getting the performance of their big regional hub right, since their individual impact on growth is high
2. given that the biggest share of growth comes from the other regions, neglecting them and solely focusing on the frontier regions may have significant negative impacts on aggregate growth.

A broader based growth provides benefits to the overall economy in terms of national resilience, equity and fiscal health (OECD, 2012c). Broader regionally based growth is likely to be more diversified, in turn making the economy more resilient to external shocks. “Catch-up” driven growth in poorer regions is also likely to strongly reduce inequalities and economic opportunities across regions and individuals. Finally, lifting regions from under-performance limits the cost of fiscal equalisation transfers to those regions and strengthens national cohesion.

Drivers of growth vary across levels of development. The barriers to growth that regions must overcome vary widely across regions and levels of development. Successful performance therefore requires more than “one-size fits all” economy-wide policies: a place-based approach is needed. The OECD has developed a taxonomy of regions based on their performance against national averages, and then against both national and OECD averages. Regions were grouped depending on their starting point in 1995 (in gross domestic product [GDP] per capita) and their growth rates between 1995 and 2007. This approach allows for identifying commonalities among regions with similar levels of development or distance to a production possibility frontier (Aghion and Howitt, 2006).

The taxonomy was used to find the key drivers of growth at each level of development and their impact on aggregate output. This taxonomy defined regions as follows:

- regions with large catching-up potential
- regions with catching-up potential
- advanced regions.

The main factors of growth vary between these different types of regions based on their stage of development (OECD, 2009a; 2012c) (Table 2.2).

Table 2.2. **Drivers of regional growth vary according to their stage of development**

Type of region	Main factors of growth
Regions with large catching-up potential	<ul style="list-style-type: none"> – Lower-income regions <i>ceteris paribus</i> tend to grow faster, implying that there is a process of income convergence within this group. However, the latter do not appear to be strong. – Human capital has a positive impact on growth. The most important effect appears at the bottom of the skill distribution: the negative impact of a large share of the workforce with very low skills appears to be a more important factor than the positive impact of a large share with tertiary qualifications. This result has important policy implications. – Population density is not associated with higher growth, reinforcing the impression created by the benchmarking exercise that there is more to generating agglomeration economies than simply putting large numbers of people in close proximity to one another. – Regions with low employment rates can generate growth by increasing labour force participation.
Regions with catching-up potential	<ul style="list-style-type: none"> – Human capital – measured in terms of both the absence of workers with no more than a primary educational attainment in the labour force and the presence of workers with a tertiary education – has a positive impact on growth. – Mobilisation of the labour force brings growth in intermediate regions. – Some innovation-related indicators appear to have an impact on growth in certain models (e.g. business R&D and government R&D expenditures) but the results are not stable.
Advanced regions	<ul style="list-style-type: none"> – Conditional convergence is weaker among leading regions than among intermediate regions. Agglomeration economies play a larger role in leading regions, and agglomeration economies tend to work against convergence. The logic of agglomeration would lead one to expect divergence of regional performance over time, with the leading regions pulling further ahead. So the results for this group reflect the contradictory impact of the forces of convergence and agglomeration. – Infrastructure density is not a key factor. That is related to the expectable diminishing returns to investments in infrastructure and the fact that advanced regions would tend to already have good connective infrastructure. – Human capital has a positive impact on growth. Again, it is the share of individuals with very low skills that is significant in every model, suggesting the degree to which large groups of unskilled or low-skilled workers can act as a drag on growth. – Innovation has a positive impact on growth.

Source: OECD (2009a), *How Regions Grow: Trends and Analysis*, <http://dx.doi.org/10.1787/9789264039469-en>; OECD (2012c) *Promoting Growth in All Regions*, <http://dx.doi.org/10.1787/9789264174634-en>.

For policy makers, these findings suggest a small number of key growth bottlenecks which vary across different types of regions. Skills are particularly important across all types of regions, particularly the share of the workforce with very low skills. Infrastructure is generally not a binding constraint, and innovation is more important at more advanced stages of development. Across all regions the quality of government is an important factor, particularly for less-developed regions. The key message for policy makers is the importance of integrated approaches which combine these different policy areas, and ensuring they are adapted to the needs and circumstances of different regions.

In this sense, policy complementarities are critical. Without effective co-ordination there is a cost associated with isolated interventions and “unbalanced” policy packages. Improving regional performance has less to do with executing a sequence of individual

steps than with identifying a feasible strategy for addressing a number of policy challenges in a co-ordinated fashion. Seeking to individually improve parts of the policies may cause negative effects if reforms are not considered in a comprehensive way.

Table 2.3. **Growth bottlenecks per level of development**

Growth drivers/bottlenecks	Relative level of development		
	Lagging (>75% of national average per capita GDP)	Intermediate (75-100% of national average per capita GDP)	Leading (>100% of national average per capita GDP)
Human capital/skills: presence of very low skilled	√√	√	√√
Human capital/skills: presence of highly skilled	√	√	√√
Labour force mobilisation: participation/employment rates		√	√√
Innovation activity: patents, R&D spending, employment in knowledge-intensive sectors	√	√	√√√
Agglomeration effects: density of population, density of GDP			√
Quality of government	√√	√	√

Notes: √ = somewhat important; √√ = very important; √√√ = critical factor.

Source: Based on results in OECD (2012c), *Promoting Growth in All Regions*, <http://dx.doi.org/10.1787/9789264174634-en>.

Effective public investment across levels of government

The implementation of these policies depends upon governance and fiscal reforms that can enable an integrated place-based approach to public investment. Investments that are poorly designed and executed not only imply high opportunity costs but may also directly hamper growth. Subnational governments in Peru and across the OECD are the biggest providers of public investments (see Chapter 4), thereby efficiency in public investments requires strong co-ordination across levels of government and governance capacities to design and implement policies.

Subnational governments generally play a strong role in addressing the key growth bottlenecks discussed in the previous section. Across the OECD, regions invest 37% of their budget in economic affairs (transport, communications, economic development, energy, etc.). Another 23% of their investments go to education, which will in turn impact the levels of skills of the workforce. Subnational governments also play an important co-ordinating role, in helping to align and co-ordinate investments between national and local governments.

As discussed, the paradigm shift in regional policies has important implications for how government works. Policies should be adapted to the needs and circumstances (social, economic, cultural, geographic, environmental, etc.) of different regions. Policies should also be integrated to help realise complementarities between them. Tailoring policies in this way requires new ways of working and organising which are challenging for traditional forms of public administration and fiscal management. To help countries address these challenges, the OECD has developed the Principles on Effective Public Investment across Levels of Government. The purpose of these principles is to help governments at all levels assess the strengths and weaknesses of their public investment capacity using a whole-of-government approach, and set priorities for improvement. The principles are grouped into three pillars, which represent systemic multi-level governance challenges for public investment:

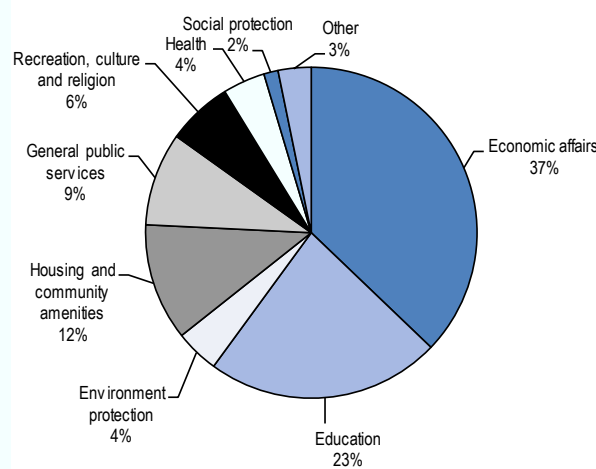
Box 2.1. Subnational governments invest in building critical capacities for sustainable growth across the OECD

Most of subnational public investment goes to areas of critical importance for future economic growth, sustainable development and citizens' well-being (Figure 2.1). In terms of total investment by subnational governments across the OECD, 37% is allocated to economic affairs (transport, communications, economic development, energy, construction, etc.). Approximately 23% of public investment is used for education, which helps determine the quality of the future labour force. A further 11% is dedicated to housing and community amenities. Healthcare and environmental protection are also major areas of investment for subnational governments, in particular in Nordic countries for health or Eastern European countries for the environment.

Many policy areas instrumental for inclusive growth and sustainable development are mainly in the hands of subnational governments. The policy areas in which subnational governments have the highest share of the investment spending as a share of general government spending are housing and community amenities (with 96% of direct investment done at the subnational level in the OECD-26), recreation and culture (87%), environmental protection and education (around 80%), social protection (64%), economic affairs (53%), public order and safety (51%), and health (38%).

Figure 2.1. Subnational public investment is a potential driver of competitiveness

Share of direct public investment by economic function undertaken by subnational governments, 2011



Source: OECD (2013c), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

Public investments also have direct impacts today given the large share spent on maintaining existing infrastructure. In EU countries, around 70% of public investment is actually for maintenance costs associated with past infrastructure investments. In the United States, for the transport and water sectors, they account for 52% of public spending, with subnational governments responsible for nearly 90% of that maintenance spending. Deferred maintenance is a common strategy in times of budget pressures. However, the result is that quality of critical public infrastructure will continue to degrade, which can cause problems such as unusable school buildings or hospital facilities as well as closed bridges and road congestion. Asset values also erode with a long-term disinvestment. Therefore, the lack of needed maintenance investments can also lead to problems for today's well-being and competitiveness.

Source: OECD (2014a), *OECD Regional Outlook 2014: Regions and Cities: Where Policies and People Meet*, <http://dx.doi.org/10.1787/9789264201415-en>.

- Co-ordination challenges: cross-sector, cross-jurisdictional and intergovernmental co-ordination are necessary, but difficult in practice. Moreover, the constellation of actors involved in public investment is large and their interests may need to be aligned.
- Capacity challenges: where the capacities to design and implement investment strategies are weak, policies may fail to achieve their objectives. Evidence suggests the public investment and growth outcomes are correlated to the quality of government, including at the subnational level.
- Challenges in framework conditions: good practices in budgeting, procurement and regulatory quality are integral to successful investment, but not always robust or consistent across levels of government.

Box 2.2. OECD Principles on Effective Public Investment across Levels of Government

The OECD instrument groups 12 principles under 3 pillars: co-ordination, capacities and framework conditions.

- Pillar 1: Co-ordinate across governments and policy areas
 1. Invest using an integrated strategy tailored to different places.
 2. Adopt effective co-ordination instruments across levels of government.
 3. Co-ordinate across subnational governments to invest at the relevant scale.
- Pillar 2: Strengthen capacities and promote policy learning across levels of government
 4. Assess upfront long-term impacts and risks.
 5. Encourage stakeholder involvement throughout the investment cycle.
 6. Mobilise private actors and financing institutions.
 7. Reinforce the expertise of public officials and institutions.
 8. Focus on results and promote learning.
- Pillar 3: Ensure sound framework conditions at all levels of government
 9. Develop a fiscal framework adapted to the objectives pursued.
 10. Require sound, transparent financial management.
 11. Promote transparency and strategic use of procurement.
 12. Strive for quality and consistency in regulatory systems across levels of government

Source: OECD (2014c), Effective Public Investment Across Levels of Government Toolkit, www.oecd.org/effective-public-investment-toolkit.

The first pillar focuses on co-ordination, which tends to include complex interactions between public and private actors. This complexity can generate gaps and duplication in investment between levels of government (Charbit and Michalun, 2009). In adapting the new regional paradigm for Peru, co-ordination mechanisms will need to be taken into account. OECD countries have set up a range of different mechanisms to co-ordinate investment at a regional level. This will be important for Peru as adapting national diversification policies to the place where they are applied strongly increases the chances of them working. Canada and France have both introduced place-based approaches to the delivery of industry and innovation policies.

Box 2.3. Investing using an integrated strategy tailored to different places: The cases of Canada and France

Canada

Regional development agencies (RDAs) across Canada help to address key economic challenges by providing regionally tailored programmes, services, knowledge and expertise that: 1) build on regional and local economic assets and strengths; 2) support business growth, productivity and innovation; 3) help small and medium-sized enterprises (SMEs) effectively compete in the global marketplace; 4) provide adjustment assistance in response to economic downturns and crises; and 5) support communities.

The RDAs continue to promote the importance of innovation and skills for regional development. For example:

- Western Economic Diversification Canada launched the Western Innovation Initiative (WINN), a CAD 100 million five-year federal initiative that offers repayable contributions for SMEs to move their new and innovative technologies from the later stages of research and development to the marketplace.
- Federal Economic Development Agency for Southern Ontario's (FedDev Ontario) Southern Ontario Prosperity Initiatives focus on innovation, productivity and economic diversification; additionally, the agency's Advanced Manufacturing Fund is a USD 200 million fund to support product and process innovation in the manufacturing sector.
- Atlantic Canada Opportunities Agency provides approximately CAD 90 million annually to support innovation and commercialisation under its current programmes, including the Atlantic Innovation Fund and the Business Development Program.

France

France introduced competitiveness poles in 2004. A *pôle de compétitivité* brings together large and small firms, research laboratories and educational establishments, all working together in a specific region to develop synergies and co-operative efforts. Other partners may be brought in, such as public authorities, either local or national, as well as firms providing business services. Although there are 71 poles, including 5 designated in 2007, project selection has channelled most funding to relatively few. Sixteen poles are of international rank, while the rest have a national or regional focus.

In an evaluation report in June 2008, the networking, SME involvement and visibility of the poles were viewed positively, but there were some concerns about their different performances. Responding to this concern, it was recommended that 39 poles be extended unconditionally for 3 years, 19 be extended for 3 years but subject to a funding review after 18 months, and 13 be evaluated after one year. The strategic approach to the poles will be consolidated via new "performance contracts" and the new calls in the field of eco-technologies.

Sources: OECD (2007a), *Linking Regions and Central Governments: Contracts for Regional Development*, <http://dx.doi.org/10.1787/9789264008755-en>; www.feddevontario.gc.ca/eic/site/723.nsf/eng/01690.html; OECD (2014a), *OECD Regional Outlook 2014: Regions and Cities, Where Policies and People Meet*, <http://dx.doi.org/10.1787/9789264201415-en>; OECD (2010c), *Regional Development Policies in OECD Countries*, <http://dx.doi.org/10.1787/9789264087255-en>; and www.datar.gouv.fr.

The second pillar of the principles focuses on core capacities for public investment, notably at subnational level, and the need to promote policy learning at all levels of government. Co-ordination is a necessary condition but not sufficient to achieve successful public investments. If capacities to design and implement investment strategies are weak, co-ordination mechanisms will not be sufficient to produce good outcomes. A

key element for Peru will be how to more effectively engage the private sector and other non-governmental actors throughout the policy and investment cycle. This will help to build continuity in policies, and capability at a subnational level.

Box 2.4. Encouraging stakeholder involvement throughout the investment cycle: The cases of Denmark and Slovenia

Denmark

In 2007, Denmark sought to promote greater efficiency as well as a more regional approach through municipal reform. Fourteen counties were restructured into 5 regions, and 271 municipalities reduced to 98. As part of the reform process, each region was required to appoint at least one regional growth forum to guide regional business development strategies and the use of associated regional and EU Structural Funds. By law, the 20-member public-private boards include regional and municipal elected officials, business persons, representatives of the higher education and research community, and trade unions. Members are appointed by the regional council upon recommendation by the municipalities and social partners. They meet four to six times a year and are supported by the regional administration.

Slovenia

In 2011, Slovenia enhanced the participation of stakeholders in Development Regional Council. The 2011 law reorganised regional development councils and regional councils, which are combined to form a development region council in order to rationalise their activities and costs. Membership consists of representatives of municipalities (40%), economic associations – such as chambers of commerce or craft (30%), and non-governmental organisations (30%).

Sources: OECD (2012b), *OECD Reviews of Regional Innovation: Central and Southern Denmark 2012*, <http://dx.doi.org/10.1787/9789264178748-en>; OECD (2011c), *OECD Territorial Reviews: Slovenia 2011*, <http://dx.doi.org/10.1787/9789264120587-en>.

The third pillar of the principles provides a macro perspective on the key framework governance conditions for public investment. Strong framework conditions are pre-requisites for good investments. If framework conditions are weak, efforts to strengthen co-ordination and (subnational) capacities may miss part of their targets. Many of the framework conditions for effective public investment are usually largely the responsibility of national governments, but not solely, as in many cases subnational governments have an explicit role (OECD, 2014a). Lessons for improving the overall system of public investments could be drawn from countries such as Australia or Sweden (Box 2.5).

Assessing the Peruvian framework for regional development

The analysis in the previous section highlights some important insights and lessons from good practices across the OECD for Peru. The first is that regions are important to national growth and there is variation in the drivers of growth at a regional level. Secondly, regions are increasingly important to the design and execution of sectoral and innovation policies. Thirdly, this depends on reforms to public governance and fiscal arrangements, particularly at a subnational level. This includes how policies are co-ordinated, capabilities are built and the adaptation of fiscal frameworks to policy goals. This section assesses how these elements are reflected in the national policy framework for regional development.

Box 2.5. Developing a fiscal framework adjusted to the objectives perused: The cases of Australia and Sweden

Australia

In 2008, the Council of Australian Governments (COAG) agreed to a new Intergovernmental Agreement on Federal Financial Relations. This agreement increased the financial autonomy of the states, moving from input control to the monitoring of outputs, and rationalising the payments made to the state into five broad areas (health, affordable housing, early childhood and schools, vocational education and training, and disability services). Each of these payment areas are funded by a special purpose payment, distributed to the states on an equal per capita basis (there is no need to adapt the amounts to the needs and costs of each state, as this is done by the Commonwealth Grants Commission). For each of these payment areas, a mutually agreed national agreement clarifies the roles and responsibilities that will guide the Commonwealth and the states in the delivery of services across the relevant sectors and covers the objectives, outcomes, outputs and performance indicators for each special purpose payment. The performance of all governments in achieving mutually agreed outcomes and benchmarks specified in each special purpose payment is then monitored by the independent COAG Reform Council (CRC) and publicly reported on an annual basis.

Sweden

The National Reform Programme connected to the Europe 2020 targets emphasises a growth friendly fiscal policy while preserving sound public finances. Returning to surplus is vital for protecting jobs and welfare in a small open economy such as Sweden's. The 290 municipalities throughout Sweden also work on many fronts and within many of their core activities on measures that can be linked to the Europe 2020 objectives. In a majority of regional councils, municipalities have also integrated the targets of the strategy into their operational plans and budgets and defined measurable indicators.

Local governments have recently developed new fiscal instruments to better support environmental objectives – and indirectly regional development, through increased focus on public transport. Sweden is one of the few countries with carbon emissions below the level recorded in 1990. One of the best-known examples is Stockholm's congestion tax, implemented in 2007, which has decreased traffic to and from the city centre by 20%. Combined with many other proactive policies to combat climate change, this has made Stockholm one of the most advanced cities in terms of climate change policies; it was named European Green Capital 2010.

Sources: OECD (2010a), *OECD Reviews of Regulatory Reform: Australia 2010*, <http://dx.doi.org/10.1787/9789264067189-en>; OECD (2014c), *Effective Public Investment Across Levels of Government Toolkit*, www.oecd.org/effective-public-investment-toolkit; OECD (2010b), *OECD Territorial Reviews: Sweden 2010*, <http://dx.doi.org/10.1787/9789264081888-en>.

Peru has established a national planning system across levels of government, however, it is not effectively integrated with the fiscal framework and measures to build the capability of subnational governments

Over the last decade the Peruvian government has invested in improving its strategic planning capabilities. In 2008, the National Strategic Planning System (SINAPLAN) and its National Strategic Planning Centre (CEPLAN) as its governing and guiding body were created. CEPLAN is integrated within the Presidency of the Council of Ministers (PCM), and its role is codified in the Law on the Creation of the National System of Strategic Planning (SINAPLAN) and CEPLAN (Legislative Decree 1088). Under this law, the two main functions of CEPLAN are to:

1. formulate and disseminate a shared vision of the future of the country in the different levels and sectors of the general government, through the elaboration and update of the National Strategic Development Plan (PEDN in Spanish)
2. regulate the strategic planning process in all public sector entities.

Box 2.6. Importance of planning to national growth and development

It is widely accepted that the quality of public institutions is a key factor in explaining long-term differences in productivity and GDP per capita (see McLean, 2013; Gill et al., 2014). These institutions provide the foundation for implementing sound fiscal policies to manage the risks such as price fluctuations associated with resource-based economies (Ahrend, 2006). Other key institutional factors include the effectiveness of regulation, and the quality of public services and infrastructure.

Delivering these outcomes requires public institutions which can prioritise and co-ordinate a range of different policy instruments. In this sense, the capability to develop clear policy frameworks and having the mechanisms to link them to legislative and budgetary instruments is essential for economic growth and diversification.

The development experience across several OECD countries has shown that strategic planning at a national level can be important to the development process. Countries at certain levels of economic development can benefit from planning specially in the provision of basic public services and those that are essential for growth and diversification, such as schooling, infrastructure and creating the right framework for investments in innovation, as it has been the case for many years in France with the Commissariat au Plan.

Effective strategic planning can help solve co-ordination issues, externality issues, reduce asymmetries of information, socialise part of the costs of discovery, contribute to the better functioning of markets, and create new markets where there are no markets. The two latter elements contribute improvements in the allocation of resources once markets function. Planning agencies have also shown to be successful at increasing production levels and productivity in certain sectors such as agriculture, as was the case, for example, in India with the Green Revolution during the 1950s and 1960s.

In terms of its regulatory role, CEPLAN undertakes a number different advisory and capability building functions. These roles focus on building strategic planning capability across different levels of government. However, CEPLAN does not have the capacity to enforce rules or use incentives to improve and align strategic planning across the national government, or with subnational governments. CEPLAN's current functions in relation to its regulatory role focus on the provision of technical advice:

- advising government entities (especially the PCM) and regional and local governments in the definition, monitoring and evaluation of policies and strategic development plans, to ensure coherency with the objectives of the PEDN
- developing methodologies and technical tools to ensure consistency in planning; it works to ensure the harmonious and sustained development of the country and strengthen democratic governance
- supporting professional development and technical training of specialists in strategic planning, forecasting, and in the definition and evaluation of public policies and plans at the three levels of government, including in higher education institutions
- monitoring and evaluating the government's strategic management capabilities and outcomes.

The strategic planning methodology established by CEPLAN utilises foresight techniques to establish scenarios and link them to clear objectives, progress measures and actions. This methodology is used to develop medium-term strategic policy frameworks at a national, regional and sectoral level. In turn, these are translated into shorter term organisational level planning. This methodology includes a result-based approach to planning. The different phases of the planning process are outlined in Box 2.7.

Box 2.7. Phases of the planning process established by CEPLAN

- Prospective analysis (foresight/horizon scanning): a conceptual model is defined in the directive to enable an understanding of the evolution of a sector or territory over a medium-term planning horizon. The environment is analysed to identify trends and other external factors; variables are identified, analysed and prioritised on the basis of which scenarios are built; an analysis of risks and opportunities is carried out. This generates futures scenarios for the National Strategic Development Plan's (PEDN) vision framed by a medium-term planning horizon. This activity is conducted using different tools:
 - definition of a conceptual model for understanding the sector or territory
 - environmental analysis identifying trends for the PEDN timeframe and other external factors
 - identification of variables through discussions with experts
 - prioritisation of strategic variables
 - diagnosis of variables and/or analysis of facts, for scenario building
 - analysis of risks and opportunities: definition of scenarios.
- Strategic phase: a central scenario for the PEDN timeframe is defined, with the vision, mission, strategic objectives, indicators actions and goals. Furthermore, articulation mechanisms are developed at the level of objectives and chain of strategic plans.
- Institutional phase: the institutional mission and strategic objectives are determined, together with their corresponding indicators and goals. Additionally, institutional strategic actions are identified, broken down into activities and linked to the public budgeting system.
- Monitoring phase: continuous monitoring of the pursuit of strategic objectives is performed through indicators in order to provide feedback to the planning process for the anticipation of risks and delays.

Source: Based on information from CEPLAN.

CEPLAN has also established a hierarchy which links national development planning to sectoral and regional plans. Each ministry is required to develop a sector-specific strategic plan (PESEM) which has a five-year planning horizon. Subnational governments are also required to develop the following strategic planning frameworks:

- Concerted regional development plan (PDRC): this document is prepared by the regional governments, using an eight-year planning horizon. It is put together during the strategic phase, taking into account the PEDN and PESEM objectives and the multi-year macroeconomic framework.
- Concerted local development plan: this document is prepared by local governments, also using an eight-year planning horizon. It is also put together during the strategic phase, taking into account the PEDN and PESEM objectives and the multi-year macroeconomic framework.

In terms of operationalising these planning frameworks, subnational governments are required to develop institutional plans which link strategic and organisation planning. The

institutional strategic plan (PEI) has a three-year timeframe and is developed during the institutional phase of the planning process (as set out in Box 2.7). It develops the entity's strategic actions to achieve the goals set in the PDRC and/or in the PESEM. The institutional operational plan (POI) is also prepared by the public entities every year. It contributes to the management of the entity to achieve its strategic objectives.

This planning architecture establishes a framework to better align and co-ordinate national and regional planning, and link it with operational planning at an organisational level. The role of CEPLAN focuses on monitoring and evaluating these subnational planning frameworks in terms of their alignment with national and sectoral planning frameworks, and the articulation between objectives, indicators and targets within each plan. Although this quality assurance and advisory role is important, there is a gap between these plans and the fiscal framework.

One way to address this gap is by using outcomes set at a national or regional level to guide budget strategy and prioritisation. For example, New Zealand has gone down this reform path through its Better Services Initiative. This sets high-level results and targets for ministers and departments, which provide the basis for setting budget priorities and reporting progress. A rationale is provided for each of these result areas to explain why it is important to the country's future development, and each has a key indicator to monitor progress.

Another way is to embed longer term infrastructure planning into the fiscal framework. This can include requiring ministries and lower levels of government to complete capital investment and asset management plans. Asset management covers the life cycle of public investment and includes the planning, acquisition, operation and disposal of assets. Given the medium-term nature of public investment decisions, these plans should have a five- to ten-year time horizon. The completion of these plans can then be made a condition of allocating public funds for infrastructure.

Some jurisdictions have also developed mutually agreed funding agreements at a regional or city scale. For example, UK City Deals are used to link new spending to city productivity and growth, give local government greater autonomy and revenue-raising capacity, and incentivise governance reforms. Colombia has also gone down this reform path through its *contratos plans* (Box 2.8).

Peru has begun to develop mechanisms to better link public investment with outcomes. Traditionally, public budgeting across the OECD has been based on defined inputs (amount of capital investment or recurrent expenditure) with recent shifts over the past two decades toward accountability for specific outputs (e.g. the quantity and quality of services to be delivered). There has been a recent shift across the OECD toward budgeting for outcomes, for example, in terms of improving educational performance and reducing crime (Webber, 2004). The Results-Based Budgeting Initiative in Peru is consistent with these reform directions. However, it is a tool that focuses on individual budgeting programmes. A logical next step is to develop mechanisms to better link strategic planning with budget strategy and resource allocation (as outlined above).

Box 2.8. *Contratos plan* in Colombia

Colombia's *contratos plan* is a governance tool that helps align investment agendas at the national and local level, improving accountability and transparency and providing subnational authorities with capacity building. The contract is a binding agreement between the central government and a department, a group of departments or a group of municipalities. The parties commit to co-ordinate their investment agendas among sectors and across tiers of governments. In addition, they agree to deliver their interventions within a given timeline.

Colombia's negotiated territorial development is part of a broader national strategy whose aim is to create institutions and capacity that can support development policies. Contracts were introduced in 2012 by the national Law on Land Use (*Ley Orgánica de Ordenamiento Territorial, LOOT*) and by the National Development Plan 2010-14, *Prosperidad para Todos*. The LOOT is a key achievement for Colombia because it demonstrates that public authorities have regained control of the national territory after decades of conflict. Its intent is to improve Colombia's multi-level governance, and provides public authorities with flexible governance instruments to deliver policy interventions where they are needed the most. The *contrato plan* was instituted as a result of the 2011 reform of royalty payments. This important reform distributes revenues generated by extractive activities to all departments in the country. Subnational authorities can use this additional revenue to co-finance interventions listed in the contracts. Finally, contracts also connect with innovative approaches to rural development that seek to improve service delivery to poor households in remote communities.

As of 2013, seven *contrato plans* had been signed in Colombia, for a total (anticipated) investment of USD 6.7 billion, over five years. The policy affects almost 6 million citizens, most of whom live in rural/remote areas in nine departments. The contracts identify infrastructure, and in particular road connectivity, as their main objective. Basic services such as healthcare, education and water sanitation are also priorities. While these objectives are supported by national transfers earmarked by the central government to all departments and municipalities, the contracts add flexibility to the policy and allow subnational authorities to tailor action to their specific needs. In short, departments and municipalities have more funds, the possibility of co-ordinating different sources of investment from different levels of government (co-financing mechanisms) and improved capacity to promote development and fight poverty. Contracts are not a panacea in the Colombian context, but they have generated some positive results.

For instance, they have "reactivated" development planning at the department level. Department plans, in fact, identify measures to be taken within the contracts. Another key advantage is the opportunity for learning that the contracts provide departmental governments. They offer subnational authorities the possibility of working with national representatives as they execute the measures, including large infrastructure projects. In general, contracts are a first attempt in Colombia to connect spatial planning with development policy.

Source: OECD (2014b), *OECD Territorial Reviews: Colombia 2014*, <http://dx.doi.org/10.1787/9789264224551-en>.

The Ministry for Development and Social Inclusion (MIIDIS) has also followed that path with the elaboration of causal models – results chains, including both intermediate and immediate, and products that the state must deliver to achieve the results of each priority – based on evidence. These are important steps towards an intersectoral and intergovernmental articulated framework.

In order to make this link, the quality and consistency of strategic planning at a subnational level will need to be improved. Subnational planning frameworks are in their early days of development and implementation. To date, only twelve concerted regional development plans (in Amazonas, Ancash, Puno, Ayacucho, Ica, San Martín, Tacna, Ucayali, Huancavelica, Junín, Loreto and Moquegua) have been developed – with the methodology of developed by CEPLAN to articulate plans development plans.. No concerted local development plans have yet been developed. This indicates the early stage of

implementation, and also variations in capability between different regional governments, and the lack of incentives for subnational governments to complete these plans.

Box 2.9. Results-oriented budgeting

Under the responsibility of the Ministry of Economy and Finance (MEF), results-oriented budgeting is being adopted to maintain fiscal discipline, improve efficiency in the distribution of resources and the quality of public spending, and ensure the operational effectiveness and efficiency of all entities and agencies.

According to General Law of the National Budget System, the results-oriented budget (PpR) is a public management strategy that links the allocation of resources to measurable outputs and outcomes in favour of the population. This is implemented by the MEF's Director General of the National Budget (DGPP) in four progressive stages: budget programmes, performance monitoring, independent evaluations and management incentives.

The directive distinguishes between two types of results:

- **Specific result:** change that solves an identified problem for the targeted population, which contributes to the achievement of the final result. Each budget programme only has one specific result.
- **Final result:** change in the conditions, quality or features inherent of an identified population, its environment or in the organisations that serve it. It corresponds with a national policy objective. It is worthwhile to note that the change in the final result may be influenced by exogenous factors and not only by the public policy.

In 2015, the DGPP approved the Directive 001-2015-EF on budget programme for the 2016 budget, which included an objective to improve the territorial articulation of the budget programmes.

A gradual and asymmetric approach (such as presented in Chapter 4) to integrating strategic planning and the fiscal framework must be taken, in order to build competencies at the subnational level and enable successful implementation. The task force (presented in Chapter 4) as well as the creation of institutional support capacity at macro-regional level could help subnational governments build more coherent plans with the national level that could be articulated to the budget. Linking strategic planning with the fiscal framework would create a greater incentive to produce coherent and actionable plans, and to develop a more strategic approach to public investment.

In addition, CEPLAN will need to be better resourced and have strengthened capacities to ensure co-ordination in the implementation of the National Strategic Planning System. There is a high degree of complexity associated with this system with strategic, operational and institutional plans at a national, sectoral, regional and local scale. It will be important to ensure planning cycles are aligned and feedback loops are in place, that plans are actionable and respond to changing circumstances. This also relates to ensuring the development of a more strategic role for the PCM as outlined in the OECD's *Public Governance Review of Peru* (OECD, 2016).

National planning provides a framework for regional policy in Peru, which is mainly associated with the old paradigm of regional policy

Approved in 2011 by Supreme Decree 054-PCM, the Plan Estratégico de Desarrollo Nacional (PEDN) is the long-term national development plan establishing priorities and progress measures over the next decade. It was conceived as an open and flexible tool, subject to ongoing improvement and updating. The PEDN reflects a participative process

involving all levels of government, institutions and stakeholders, including public, online consultation and workshops.

In the context of the update of the PEDN, CEPLAN published a Methodological Guideline for the Update Process of the PEDN in 2014, with four specific issues:

1. the consolidation of growth with democracy and social inclusion
2. alignment of equal rights opportunities and social goals with the UN Millennium Goals
3. achievement of economic and social co-operation at the regional and local levels
4. attainment of an historical encounter with rural Peru.

The updated PEDN is organised around six pillars which each have a national strategic objective and corresponding indicator and target (Table 2.4).

Table 2.4. The pillars of the national strategic plan

Pillar	National strategic objective	Lead indicator	Source	Baseline	2016 target	2021 target
1	Effective exercise of human rights and dignity of persons with social inclusion from the poorest and most vulnerable part of the population	Human Development Indicator (HDI)	UNDP	0.737 (2013)	0.739	0.764
2	Guaranteeing access to quality services that will allow for the full development of the capacities and rights of the people, under fair and sustainable conditions	Multidimensional Poverty Indicator	UNDP	0.043 (2012)	0.040	0.018
3	Development and consolidation of democratic governance and of strong public institutions*	Government Effectiveness Indicator	World Bank	2.73 (2014)	2.90	3.03
4	Development of a diversified and sophisticated economy with sustainable growth in a decentralised structure, generating decent jobs	Per capita GDP	World Bank	9 875 (2014)	10 412	12 852
5	Territory knitted and organised in sustainable cities with guaranteed provision of quality infrastructure	Share in the departmental gross value added (except for Lima) <i>vis-à-vis</i> the total value	INEI	50.84 (2014)	50.71	51.30
6	Offers a global vision of the environmental performance of the country, efficient, responsible and sustainable use of biological diversity, ensuring adequate environmental quality for a healthy life of the people and a sustainable development of the country	Environmental Performance Indicator (EPI)**	Yale University	45.05 (2012)	46.37	49.06

Note: * The indicator has a range of values between -2.5 and 2.5. This has been rescaled to a range between 0 and 5: the lower value implies worse performance in this indicator, while 5 refers to the best performance.

Source: CEPLAN (2016), Proyecto del Plan estratégico de Desarrollo Nacional: Plan Bicentenario: El Perú hacia el 2021. Actualizado, <http://www.ceplan.gob.pe/wp-content/uploads/2016/07/caratula-v-primeras-paginas.pdf>.

The fifth objective of the PEDN is to pursue balanced regional development with the right infrastructure. This pillar of the plan is based on the realisation that there are disparities in population, poverty, economic activities and infrastructure within and between regions. The plan has led to the establishment of three priorities: 1) fostering

investments in productive infrastructure and services required by the regions; 2) investing in activities that transform primary regional production, in a sustainable and competitive manner while creating jobs; and 3) reducing the dispersal of the population. The plan is then divided into four objectives declined in indicators and strategic actions. The four objectives are:

1. sufficient and adapted economic and productive decentralised public infrastructure in the macro-regional planning areas
2. diversified and high value-added production in the agrarian, fishery, mining and tourism sectors based on the comparative and competitive advantages of each region
3. strengthen job-creating decentralised private investments focused on responding to national and international demand
4. regroup rural population in rural intermediary cities established on the basis of planned population centres.

This regional development objective has introduced several elements of the new paradigm, such as planning based more on economic functional areas rather than on administrative regions, although the three macro-regions do not match the five economic corridors previously identified in the document. The PEDN also puts emphasis on the identification of regional assets, and focuses more on enabling factors rather than on the provision of sectoral subsidies or grants.

Despite the inclusion of these elements, the basis of the analysis that sets the focus for the policy strategies is still shaped by the old paradigm of compensating regions for disparities in income and well-being. Pursuing an objective of more balanced growth is difficult as disparities and inequalities in income and jobs tend to persist over time. The key is ensuring each region can maximise its endogenous growth potential by focusing on competitiveness and improving framework conditions.

The indicators and targets set by the PEDN also do not always seem to match the objective that they have been set to analyse, nor is there necessarily a strong link between the actions and the indicator. For example, the only indicator to measure the attainment of the third objective, that of “strengthening job-creating decentralised private investments”, is the number of workers outside of Lima affiliated to the pension system. Although this indicator does encapsulate some important elements, such as the number of formal jobs created, it does not take into account the quality of employment, its productivity, whether it contributes to productive diversification, the place of the production in GVCs and the potential spillovers of these investments. Also, it removes Lima from the calculation, which, given its weight in the economy, should not be neglected, although it should probably be considered separately.

Another element of the old paradigm in this pillar of the PEDN is the weight given to hard infrastructure, and the lack of focus on soft infrastructure and its adaptation to the needs and circumstances of different regions. Furthermore, the indicators used to assess the advancement in the completion of the plan are related to the construction of infrastructure per se rather than its actual use and impact on the economic functions of the country. For example, more emphasis should be put on the connectivity and quality of the transport network.

Finally, although the plan seems to place a strong emphasis on the regional aspects, some governance instruments seem to be missing. For example, the plan mentions the

three economic macro-regions, but when it comes to the strategic actions, their implementation seems to be based more on the administrative divisions of the country rather than on the potential economic corridors of the country or on the functional economic areas. Also, the realisation of the plan relies on national programmes, which have a strong top-down bias while also lacking an integrated approach. The new regional development paradigm puts strong emphasis on the need to provide both an integrated and bottom-up approach to realise the full benefits of public investments.

As mentioned above, the plan is also not clearly integrated in a systemic way with the fiscal framework at a national or subnational level. There are some linkages through the development of sectoral and institutional plans; however, these are designed at an organisational level, which would incentivise a fragmented approach to programme design and investment. There is a need for mechanisms that can link planning priorities to a programme of investment at a territorial scale, which involves multiple institutional actors. This approach is a key feature of the EU Cohesion Funds.

Box 2.10. EU Cohesion Funds and integrated territorial investments

Achieving more balanced and sustainable territorial development is a core objective of the European Union (EU). The overarching objective of European cohesion policy is to promote the harmonious development of the EU and its regions. It makes an important contribution to the strategic objectives of the Europe 2020 Strategy:

- smart growth, by increasing competitiveness, especially in less-developed regions
- inclusive growth, by promoting employment and improving people’s well-being
- green growth, by protecting and enhancing environmental quality.

There are a number of different funds which support these objectives, including the European Regional Development Fund (ERDF), the European Social Fund (ESF) – the two “Structural Funds” – and the Cohesion Fund. The distribution of these funds is conditional upon regions developing strategies with clear performance and outcome measures.

Integrated territorial investments have recently been introduced as a governance instrument which allows EU member states to bundle funding from one or more EU programmes to ensure the implementation of an integrated strategy for a specific territory. This instrument provides a way of better linking planning with budgeting, and recognises that investments in infrastructure must be combined in an integrated way with investments in skills, innovation and economic development.

Source: European Urban Knowledge Network (2016), www.eukn.eu/events/policy-labs/integrated-territorial-approach/policies/eu-policies-and-tools-in-the-field-of-integrated-territorial-and-urban-strategies.

Concerted regional development plans are an important public policy innovation but require better integration at the national level and with fiscal frameworks

Concerted regional development plans are developed by the regional governments and are traditionally divided into five principal pillars, of which both an analysis of the current situation and based on those findings set priorities, objectives, targets, strategies and indicators. The five pillars are: social aspects (demography, poverty, education and health), environment, economy, infrastructure, and institutional management and governance.

Regional governments are required to involve local governments and civil society actors in the development of these plans. In the case of San Martín, these were the representatives of:

- the ten provincial municipalities of the region, the heads of specific projects (for example the Proyecto Especial Alto Mayo, the Proyecto Especial Huallaga Central Bajo Mayo and PROCEJA)
- “strategic allies” (GIZ, USAID-ProDecentralización) and national ministries and agencies (the MEF and INEI)
- representatives of the civil society (research centres and think tanks, non-governmental organisations, indigenous groups).

The inclusion of different levels of government, particularly the MEF (although it is not clear how this regional participation of the MEF is then co-ordinated centrally), is important in improving alignment and co-ordination. However, it is unclear how other ministries are integrated into these regional planning processes, and what role the PCM and CEPLAN play in terms of whole-of-government co-ordination. The co-ordinating role of these central agencies is important because it ensures input from all ministries.

The participation of members of the civil society is also good practice. Nonetheless, in that same example, there are no representatives of the business community on the planning committee, which is an important input, particularly to understand the bottlenecks and potential unexploited assets of the region. This has also been the case in the drafting of other concerted regional development plans, such as the one in Huancavelica. Business representation can be achieved through including representatives of industry associations in the decision-making process (such as chambers of commerce), and/or using workshops and surveys to engage directly with business owners.

The concerted regional development plans display different levels of quality and detail with some degree of alignment to contemporary OECD practices. Prioritising and executing policies based on functional economic areas is an important element of the new regional paradigm. Some plans, such as the one in San Martín, have identified economic corridors within the region. The region has identified natural and cultural resources, economic activities and human capital resources within each of these corridors. This analysis could be further improved with a more detailed assessment of the industry and business structure within these corridors and their position within global, national or regional value chains. This information would assist in designing initiatives to improve conditions for the private sector in the region.

Another feature that can be found in some of the plans is the use of SWOT analysis. Some of the plans have been able to identify the interdependencies between different pillars which may cause positive or negative externalities that need to be managed. This is important in terms of identifying policy complementarities and encouraging an integrated approach to regional development. Some elements of other pillars are also identified as influencing outcomes across different pillars, showing a more integrated vision of public policies. Nonetheless, this analysis is not applied consistently across the plans.

Despite showing slightly higher levels of integration in certain cases, most of the plans do not take into account the different sectoral plans and programmes of the national government. Furthermore, sectoral plans at a national level do not consistently account for the regional concerted plans. There is also a lack of consistency in how spatial issues are treated across these national planning frameworks. This is likely to reduce the scope

for co-ordination between levels of government across different sectoral policies. Very few of the plans articulate how different levels of government will work together in an integrated way to achieve regional planning objectives.

There also appears to be a lack of collaboration and joint planning between different regional governments. The interdependencies between regions are not strongly identified, and the plans generally do not articulate how different regions will collaborate to achieve development objectives. This is particularly important in terms of planning in relation to supply chains, and also leveraging assets such as universities in neighbouring regions.

Much like in the case of the PEDN developed by CEPLAN, there are a certain number of mismatches between the chosen indicators to assess progress, the objectives that have been set, and the policies and programmes to be deployed in order to reach those objectives. Policies and initiatives identified in these plans tend to focus on individual policy areas, and very few are organised around broader outcomes that would require collaboration across different agencies and levels of government. It is also not clear how these planning priorities are considered systemically in the budget process at a regional, local or national level.

The concerted regional development plans also tend to have a bias towards the production of hard rather than soft infrastructure. A more inclusive process with national policy makers and the business community would assist in broadening the focus to other issues including skills development, market access and innovation.

Despite these issues concerted regional development plans are an important public policy innovation for Peru. They provide a platform for the further evolution of a contemporary approach to regional development policy. Some measures to improve the quality and effectiveness of these plans include:

- building the capability of regional governments to improve the quality of regional planning, and its integration with budgeting and resource allocation
- consideration of reforms to budgeting processes to enable a more integrated and multi-year approach to public investment at a regional scale (including linking transfers to regional and local planning frameworks)
- inclusion of a broader range of policy actors in the planning process (including national ministries, the private sector and other regions)
- further analysis of the industry and business structure within regions at the scale of functional economic areas
- adjusting performance indicators so they better align with desired outcomes
- better integration of regional plans in the national planning cycle (and vice versa).

In sum, regional development is an important national policy priority; however, it is still largely informed by a logic of compensating regions for inequalities in income and well-being. The policy framework would benefit from a shift toward an approach based on regional competitiveness and unlocking growth potential. The concerted regional development plans are an important innovation and provide a platform for strengthening the role of regions in the design and delivery of national sectoral policies. However, these plans do not appear to be effectively linked or integrated with fiscal frameworks. The following section will assess national economic and industry policies and identify ways to improve this alignment and integration.

Macroeconomic policies and their impacts on regions

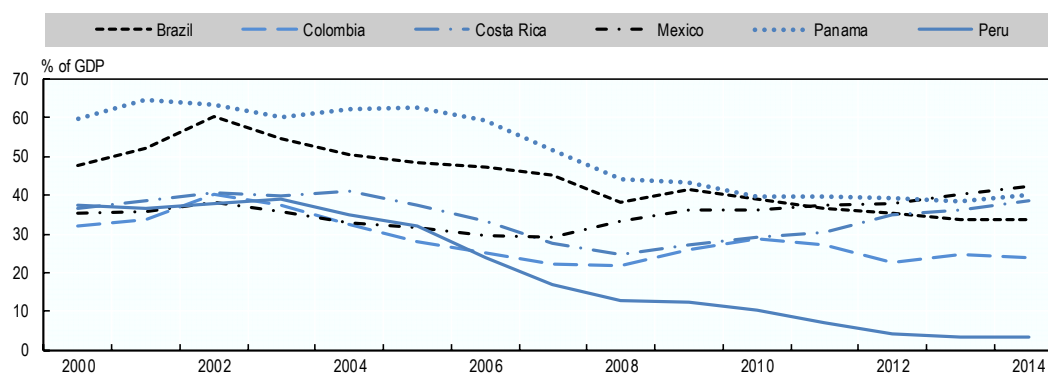
Peru has demonstrated a commitment to sound fiscal, monetary and trade policies over the past two decades

As outlined in Chapter 1, Peru has experienced strong economic growth and made significant advances in reducing poverty over the past two decades. This good performance was driven by a strong reform of both the fiscal and monetary framework since the 1990s, including the independence of the central bank in maintaining price stability, a commitment to fiscal discipline and open trade policies. These changes have been maintained across four different governments since 1990, despite strong ideological differences, showing a broad-based consensus over the need for good fiscal and monetary policies. These policy settings have allowed Peru to make the most of the favourable external conditions for its commodity-based industries, and the growth of the economy.

The improvement of the fiscal framework lies upon four important regulations. First, the 1993 law voted in Congress prohibiting the central bank from lending money to the central government, which limits the potential for over expansionary monetary policy. Second, the approval of the pension reform allowed to strongly limit fiscal gaps. Third, the Fiscal Responsibility Law voted in 1999 introduced controls over the public deficits. Finally, the 2013 approval of the new macro-fiscal framework inserting medium-term objectives in the fiscal framework limited the pro-cyclical effect of public spending over the cycle.

As a result, public deficits have been contained since the early 1990s. Since 1994, fiscal deficits have almost consistently been maintained below 3% of GDP, and since 2007 – aside from the 2008-09 period – Peru has achieved a fiscal surplus. This fiscal management has allowed Peru to significantly reduce its public debt levels as a proportion of GDP, which has allowed it to obtain an investment rating and to issue bonds in the national currency in international markets.

Figure 2.2. Evolution of general government net debt, Peru and select countries



Source: OECD (2015a), *Multi-dimensional Review of Peru: Volume I. Initial Assessment*, <http://dx.doi.org/10.1787/9789264243279-en>.

These fiscal reforms have been accompanied by a broad-based commitment to trade openness (Calero, 2006). Peru unilaterally removed tariff protections that were further progressed within the framework of the Uruguay Round of trade liberalisation during the 1990s (Reynoso, in Lengyel et al., 2003). In 1990, average tariff barriers were set at 66%

and applied rates ranged from 0% to 110% with a standard deviation of 25%. By 1997, the average tariff rate had dropped to 13.2%, the standard deviation remained at 3% and the effective rate of protection was estimated to be at around 15%. All restrictions to exports, export subsidies and export taxes were removed in 1991. Only a 15% drawback was installed for exported products. These policies have continued since the early 2000s with bilateral free trade agreements and further reductions in trade barriers (De la Flor in Perales and Morón, 2010).

In addition to reducing barriers to trade, the government has funded programmes to attract investment and facilitate access to markets. This includes the Commission for the Promotion of Exports (2006), and two export processing zones (Reynoso, in Lengyel et al., 2003 and UNCTAD, 2000). Fiscal benefits have been provided to attract investments and to support exports via COFIDE, which is Peru's development bank. Other significant changes came from the creation of PROINVERSION in 2002, a governmental body in charge of attracting foreign direct investment (FDI), and also of government export support agencies such as Sierra Exportadora (see Chapter 3).

Economic openness has enabled the diversification of exports and the further development of an internal market

These policies have helped Peru to diversify its export basket both in terms of products and destination. New products such as chemicals, new agricultural types of exports or metal-mechanic, that are considered as non-traditional export (all products that were not exported before the 1990s) have increased at a faster rate than traditional exports (from a low base). Agricultural goods have managed to diversify (including the development of the so-called “non-traditional” agricultural exports – see Chapter 3) and significantly increase in real terms. The other main beneficiary has been the textile industry, despite its relatively low weight, real term values have gone from USD 0.4 billion to almost USD 2 billion. Finally, despite their small size, some new types of exports, such as chemicals, have emerged.

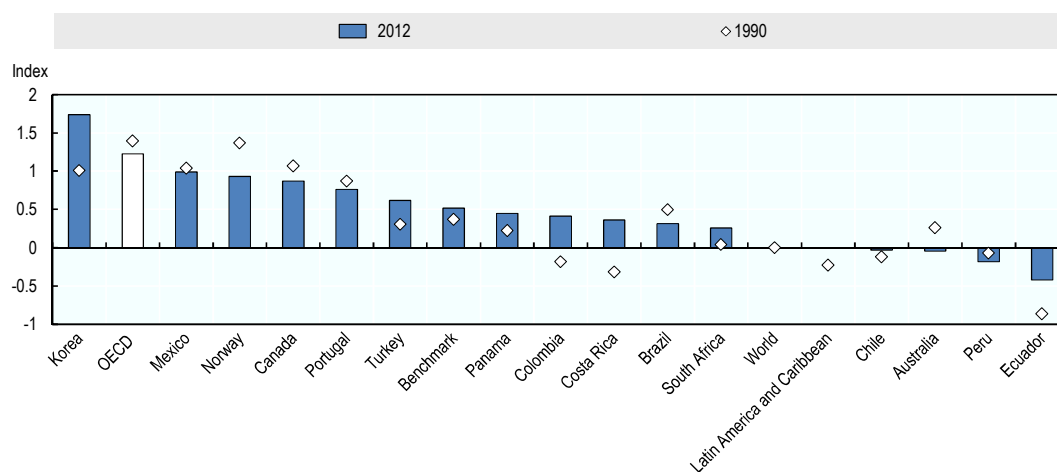
Nonetheless, the evolution remains very slow compared to the weight of traditional exports in the overall basket (Illescas and Jaramillo, 2011). This is a particularly relevant point because export diversification has been associated in the literature with increased growth levels, and higher investment levels due to the reduction of income instability (Gutierrez de Piñeres and Ferrantino, 2000; Haussmann, 2008).

Furthermore, the diversification of the export basket is not only very limited, but it is concentrated in products with very low sophistication levels. In 2013, 9% of the exports were low-technology products and only 3% were medium-technology products. The complexity of the export basket, computed by the economy complexity indicator (ECI),¹ remains low. Moreover, it participates in GVCs at the lower end of supply chains, mainly by providing primary products to other countries (OECD, 2015a).

In terms of the domestic market, private consumption has been one of the fundamental drivers of Peruvian growth over the past decade. This is closely related to the development and strengthening a new middle class (OECD, 2015a; Ernst & Young, 2014). During the 2002-05 period, exports also acted as a locomotive, strongly contributing to GDP growth. Nonetheless, since 2006, their contribution to growth has been negative for several years and investments have provided the main driver. The decreased contribution of exports to growth is due to the fall in commodity prices, but also, and most importantly, to the fact that imports have continued growing faster than exports. Since then, investments have been driven both by public sector investments,

namely related to the royalty system of the country, but also to attraction of both national and foreign direct investments in the mining, construction and service sectors. However, this investment is still related to the commodity price cycle, and decoupling the two will ensure more sustainable growth in the future, which relates back to the need to continue to grow the internal market.

Figure 2.3. **Economic complexity indicator (ECI)**



Source: OECD (2015a) based on Hausmann, R. et al. (2012), *The Atlas of Economic Complexity*.

Peru's geography is complex and these macroeconomic policies have different impacts across the economic landscape

These macroeconomic and trade policies have enabled Peru's economy to focus on core areas of comparative advantage and specialisation in terms of commodity production and associated manufacturing. In addition, this flow of income into the economy has seen the expansion and growth of the services sector. These policies have not been spatially neutral, and would have different regional impacts. A better understanding of Peru's economic geography and integrating this with macroeconomic and sectoral policies would help maximise the endogenous growth potential of Peru's regions. The following section provides an overview of Peru's industrial geography and draws some initial conclusions about the productive fabric of the country.

Regions specialise in different tradeable activities, with manufacturing and mining concentrated in a small number of places

Locational quotients can be used to reveal sectoral specialisations between regions by comparing a region's business composition to the national level. A number higher than one indicates a specialisation in a particular economic activity. The analysis of employment in key tradeable sectors reveals a number of key patterns:

- Agriculture is an important industry to a majority of regions with 14 having a specialisation in this sector in terms of employment. It is particularly important to some of the poorest regions in Peru in the highlands and rainforest. Fishing is an important industry for regions in the coastal areas and the rainforest (Loreto, Madre de Dios and Ucayali).

- As outlined in Chapter 1, the GVA of the mining industry is concentrated in a small number of regions (with Áncash, Arequipa, Cajamarca and Cusco producing slightly over 50% of the national GVA in mining). Nine regions indicate a specialisation in mining employment, and this does not include Áncash and Cajamarca, which may indicate the presence of informal mining in some of these areas.
- Manufacturing employment is concentrated in relatively fewer areas. Only four regions indicate a specialisation in this activity: Callao, Lima, Arequipa and La Libertad. These are all coastal regions with larger urban areas.

Table 2.5. **Regional specialisation, key traded sectors, 2013 (employment)**

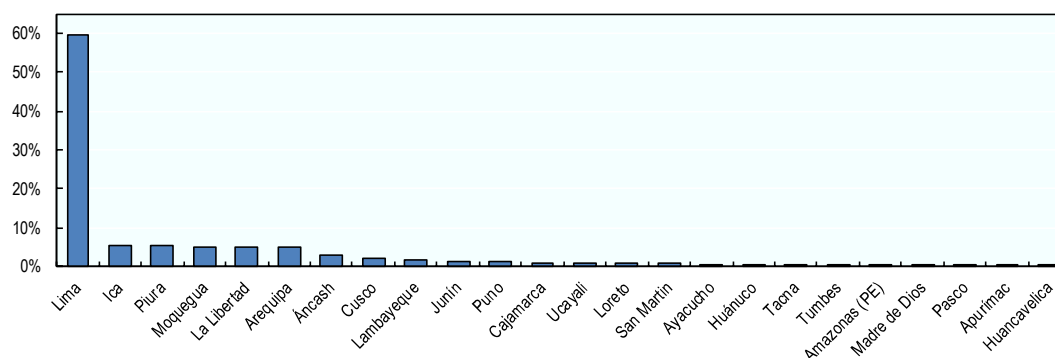
Department	Agriculture	Fishing	Mining	Manufacturing
Amazonas	2.4	0.2	0.4	0.4
Áncash	1.5	2.7	0.7	0.7
Apurímac	2.4	0.0	0.7	0.2
Arequipa	0.5	1.2	3.2	1.2
Ayacucho	2.2	...	0.4	0.4
Cajamarca	2.3	...	1.0	0.9
Callao	0.0	0.7	0.5	1.6
Cusco	1.6	0.0	0.5	0.8
Huancavelica	2.7	0.7	2.2	0.3
Huánuco	2.1	...	0.5	0.6
Ica	0.7	2.2	1.5	1.0
Junín	1.5	0.0	2.1	0.9
La Libertad	1.0	0.3	1.2	1.2
Lambayeque	0.9	3.0	0.2	0.9
Lima	0.1	0.2	0.5	1.4
Loreto	1.1	4.7	0.2	0.5
Madre de Dios	0.9	1.3	5.1	0.6
Moquegua	1.0	2.5	2.2	0.7
Pasco	1.8	0.3	4.1	0.4
Piura	1.1	3.8	0.6	0.9
Puno	1.7	0.3	3.5	0.9
San Martín	1.9	0.2	0.2	0.5
Tacna	0.6	1.0	0.9	0.6
Tumbes	0.4	7.8	0.0	0.7
Ucayali	0.9	2.5	0.4	1.0

Source: OECD elaboration based on data from INEI.

This analysis is useful for understanding the relative importance of these industries at a regional level. However, it does not indicate the contribution that these industries make to the national economy. The relative contribution that different areas make to total industry value added generates a different picture about the economic geography of the country, and reveals the significant inequalities and differences between regions.

In terms of manufacturing, Lima and Callao contributed 59% national GVA for this sector in 2013. Five regions in the coastal regions with larger cities (Ica, Piura, Moquegua, La Libertad and Arequipa) contributed another quarter of national manufacturing GVA. The remaining 15% is spread across 18 regions.

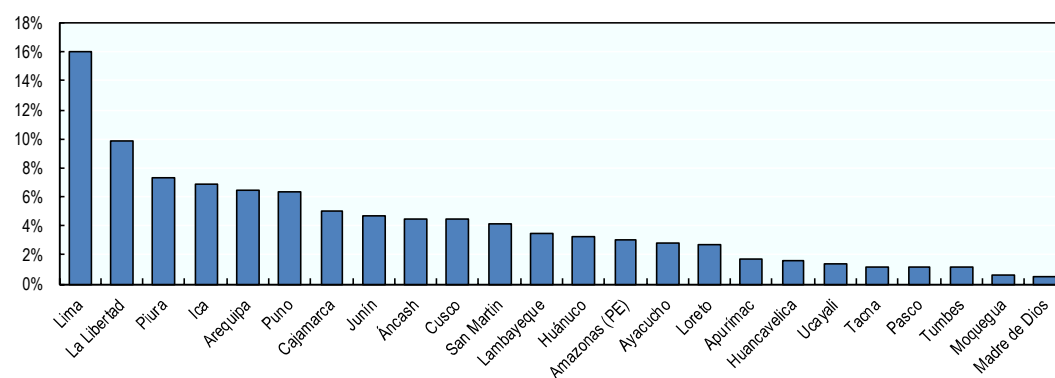
Figure 2.4. Regional contribution to manufacturing value added, 2013



Source: INEI (n.d), <http://www.inei.gob.pe>.

In relation to agriculture, forestry and fishing, the distribution is more even, which indicates the role that rural regions also play in this sector. Lima is still the largest contributor to national GVA in this sector with 16%. Another 30% comes from the contribution of the coastal regions of La Libertad, Piura, Ica and Arequipa. However, there are a number of rural regions which also make a significant contribution given their relative share of the national population and economy. This includes Puno (6%), Cajamarca (5%) and Junín (5%).

Figure 2.5. Regional contribution to agriculture, forestry and fishing value added, 2013



Source: INEI (n.d), <http://www.inei.gob.pe>.

In relation to mining, the proportion of the overall labour force employed in this activity is low (under 1.5% nationally). However, mining can have an important impact in terms of related activities such as construction, accommodation and food services, equipment and maintenance, and transportation. In Peru, an important aspect is economic activity associated with the construction phase of mining projects, with large differences at different time periods between regions.

The non-traded sector is more evenly spread across regions, with the vast proportion of high value-added activities located in Lima

The services sector, which is predominantly non-traded, will become more important to the economic development of Peru as the economy transitions away from a growth

dynamic driven by high commodity prices. These services sectors are relatively evenly distributed, with the exception of “real estate and rental services” and “other services”, which are relatively more important for Lima-Callao and the secondary city of Arequipa. Hotels and restaurants is a key sector because it is also associated with the tourism industry, and is relatively more important for the coastal regions of Arequipa, Ica, Tacna and Tumbes; and the rainforest regions of Madre de Dios, Ucayali and Loreto.

Box 2.11. The importance of mining investments at a regional level

The previous section has shown the importance of the contribution of investments for Peru’s growth in recent times. These investments are particularly significant contributors for growth, at least in the short term in regions where they take place. Cusco, Arequipa and Apurímac attracted the biggest share of mining investments in 2014 but flows of investments per region show significant levels of volatility. Also, some regions have been deeply hit by social unrest because of mining projects, such as Conga. Those regions have seen decreasing levels of investment in the mining sector. The question of the long-term positive impact of these investments for the regions and municipalities where they take place still remains in most cases due to the lack of connection of the mining firms with the local economy (Natural Resource Governance Institute, 2015).

Table 2.6. Investments in mining per region

Million USD

Region	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Arequipa	338	649	208	229	566	559	484	745	1 395	2 024	7 197
Amazonas	1	3	13	1	2	8	13	7	9	2	59
Áncash	47	64	56	100	137	464	823	914	732	493	3 830
Apurímac	22	32	34	8	18	12	838	1 056	1 745	1 677	5 442
Ayacucho	0	2	10	9	37	70	93	103	89	63	476
Cajamarca	4	149	274	361	283	555	1 437	1 303	579	349	5 294
Callao	0	0	0	0	0	0	0	0	0	0	0
Cusco	183	248	282	331	367	684	681	460	1 173	1 312	5 721
Huancavelica	25	30	42	81	72	96	107	138	101	65	757
Huánuco	0	0	0	0	5	9	26	26	24	19	109
Ica	5	2	1	42	19	38	110	179	98	97	591
Junín	16	19	21	46	80	143	960	1 469	1 524	688	4 966
La Libertad	65	81	83	114	210	270	399	679	632	523	3 056
Lambayeque	0	0	0	0	0	0	0	0	2	0	2
Lima	35	46	50	79	270	309	289	286	299	318	1 981
Madre de Dios	0	0	0	0	1	2	4	17	19	1	44
Moquegua	261	197	62	88	74	128	240	309	373	363	2 095
Pasco	20	32	47	123	270	359	319	381	572	367	2 490
Piura	0	0	0	2	263	226	167	71	49	41	819
Puno	3	0	1	9	30	50	100	149	102	75	519
San Martín	0	0	0	0	0	0	0	0	0	0	0
Tacna	61	57	65	86	116	88	152	210	207	174	1 216
Total	1 086	1 610	1 249	1 708	2 822	4 069	7 243	8 503	9 727	8 654	46 671

Source: Ministerio de Energía y Minas (2015), Anuario Estadístico Minero 2014, <http://www.mem.gob.gt/wp-content/uploads/2015/06/ANUARIO-ESTAD%3%8DSTICO-MINERO-2014.pdf>

Table 2.7. **Regional specialisation, select non-traded sectors, 2013 (employment)**

Department	Construction	Hotels and restaurants	Real estate and rental	Transport and communications	Education	Other services
Amazonas	0.8	0.4	0.3	0.6	1.1	0.5
Áncash	1.1	0.9	0.5	0.9	1.1	0.6
Apurímac	0.7	0.6	0.2	0.4	1.0	0.4
Arequipa	1.4	1.4	1.1	1.0	1.1	1.0
Ayacucho	0.7	0.8	0.2	0.5	0.9	0.5
Cajamarca	0.8	0.5	0.3	0.5	0.9	0.4
Callao	1.2	1.0	2.1	1.5	1.2	1.5
Cusco	0.8	1.0	0.5	0.6	0.9	0.6
Huancavelica	0.4	0.5	0.1	0.2	0.6	0.3
Huánuco	0.7	0.8	0.3	0.8	1.0	0.6
Ica	1.2	1.3	0.9	1.3	1.0	1.0
Junín	0.8	1.0	0.7	0.8	0.9	0.7
La Libertad	1.2	1.1	0.9	0.9	0.9	0.9
Lambayeque	1.0	1.1	0.6	1.3	1.0	1.1
Lima	1.1	1.1	1.9	1.3	1.2	1.5
Loreto	0.9	1.4	0.6	1.1	1.0	0.9
Madre de Dios	0.8	1.6	0.6	1.4	0.7	0.7
Moquegua	1.3	1.0	0.9	0.9	1.1	0.7
Pasco	1.1	0.7	0.6	0.5	1.0	0.7
Piura	0.8	0.9	0.6	1.0	0.8	0.9
Puno	0.8	0.6	0.4	0.7	0.8	0.6
San Martín	0.9	0.9	0.3	0.7	1.0	0.7
Tacna	1.1	1.2	0.9	1.0	1.1	0.9
Tumbes	0.9	1.4	0.9	1.8	1.1	1.0
Ucayali	0.9	1.7	0.5	1.3	0.9	0.8

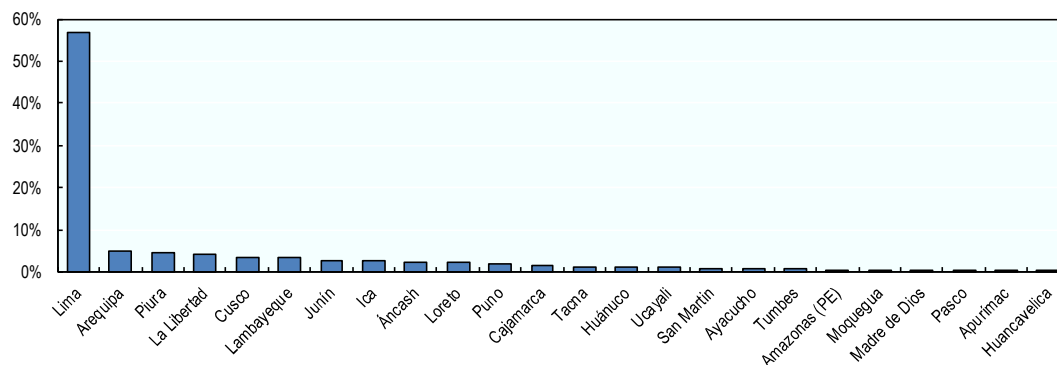
Source: OECD analysis based on data from INEI.

The relative dominance and the economic role and functions of Lima and Callao are revealed in the contribution that these regions make to national GVA in select service sectors. Lima and Callao contributed close to half (48%) of total national industry GVA in 2013. These regions contributed 57% to the distributive trade, transport, accommodation and food services sector in 2013, which indicates the important transport and logistics role of the capital in the national economy. Lima is also a key financial and business service centre for the country. The vast majority of value added from the financial and insurance sector (80%) and professional services (69%) are generated in the capital.

A key feature of business clustering in Peru is the diversity across different regions

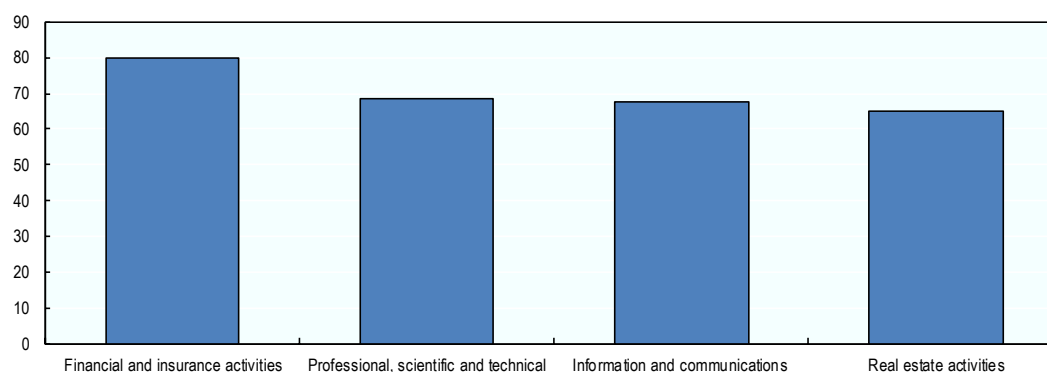
In recent years, substantial policy attention has been placed on the development of business clusters (Consortio Cluster Development 2013 – *Directorio Nacional de Empresas Manufactureras* 2012 de PRODUCE). Supporters of a cluster-based approach view it as a tool to encourage value-added upgrading within existing clusters, to promote spillovers and synergies to upgrade local economies, to attract FDI and facilitate integration with the global economy, and to engage the private sector in more effective collaboration with government at the national and regional level (Porter, 2009).

Figure 2.6. **Regional contribution to distributive trade, transport, accommodation and food services value added, 2013**



Source: OECD analysis based on data from INEI.

Figure 2.7. **Proportion of key business services located in Lima-Callao, 2013 (value added)**



Source: OECD analysis based on data from INEI.

An analysis of clusters, however, is limited by the lack of quality and timely business statistics and business performance indicators. Addressing this information gap would improve the quality of strategic planning and programme design at a national and regional level in Peru. This information gap is not surprising as the geolocation of business micro data and implementation of consistent business demography statistics remains a major challenge across OECD countries.

In 2013, the total number of businesses (*empresas*) including large, medium, small and micro businesses was estimated at nearly 1.5 million (SUNAT/PRODUCE – DIGECOMTE). In Peru, microenterprises are defined as having 1-10 employees, small ones 11-50 employees, medium ones 51-200 employees and large ones 200 or more (IFC, 2016).

Compared to OECD averages, Peru has a slightly higher proportion of microenterprises (94.6% in Peru compared with 92.4% across the OECD), and a slightly lower proportion of small and medium-sized businesses (4.8% in Peru compared with 7% in the OECD; OECD, 2015a). Nearly half of all businesses (47.9%) are concentrated in the department of Lima, which reflects its share of the economy. Lima also has a higher proportion of large business (0.82% compared to the national average of 0.55%). This

pattern is not repeated for secondary cities (except for Piura), which again reinforces the relative importance of Lima to the national economy.

Table 2.8. **Business by size and department, 2013**

	In percent			
	Large	Medium	Small	Micro
Amazonas	0.19	0.17	3.4	96.2
Áncash	0.18	0.08	3.6	96.1
Apurímac	0.15	0.08	2.7	97.0
Arequipa	0.33	0.12	3.9	95.6
Ayacucho	0.20	0.07	3.5	96.2
Cajamarca	0.24	0.12	3.8	95.8
Cusco	0.19	0.06	2.7	97.0
Huancavelica	0.08	0.02	2.1	97.8
Huánuco	0.24	0.08	3.3	96.4
Ica	0.34	0.09	4.1	95.5
Junín	0.18	0.09	2.7	97.0
La Libertad	0.28	0.11	3.8	95.8
Amazonas	0.24	0.10	3.1	96.6
Lambayeque	0.46	0.14	5.1	94.3
Lima	0.82	0.23	5.8	93.2
Loreto	0.61	0.19	4.4	94.8
Madre de Dios	0.19	0.05	2.4	97.3
Moquegua	0.14	0.06	3.4	96.4
Pasco	0.30	0.10	3.7	95.9
Piura	0.72	0.17	4.5	94.6
Puno	0.28	0.10	3.4	96.2
San Martín	0.27	0.09	3.7	95.9
Tacna	0.24	0.09	2.9	96.8
Tumbes	0.22	0.12	3.0	96.6
Ucayali	0.42	0.21	4.7	94.7
Peru	0.55	0.17	4.6	94.6

Source: OECD analysis based on data from INEI.

Data from the national household survey (ENAH0) suggest that the share of employment in larger enterprises (with 51 employees or more) has grown over time. This growth was countered by a progressive decline of employment in smaller enterprises. There are eight regions that have increased the proportion of employment in larger businesses, including some predominantly rural and poorer regions. These regions are: Amazonas, Apurímac, Cajamarca, Ica, Huánuco, Cusco, San Martín and La Libertad.

The number and type of businesses are distributed unevenly across departments, reflecting specialisation in different sectors and the scale of the regional economy. These data reveal the relative importance of clusters of businesses for different regions, such as fishing in Áncash and Pasco; mining in Loreto and Arequipa; and manufacturing in Lima, Arequipa and Junín.

In sum, the analysis reveals the diversity of economic specialisation between regions, and the importance of clusters of small firms to industry performance in Peru. The key feature of Peru's industrial geography is the dominant role of Lima in the national economy. In terms of the export sector, the majority of the country's manufacturing

sector is located in the capital. Lima is also the major transport and logistics hub of the country through which most of the goods and services essential for the economy flow. Lima also plays a key role in terms of providing high-value business services to other sectors in terms of finance, insurance, professional, scientific and technical services. The analysis also reveals that there are other urban hubs in the country which also play this role at a much smaller scale, in particular within the regions of Arequipa, Cusco, La Libertad and Piura.

Table 2.9. **Distribution of enterprises by major sector and department, 2013**

In percent

	Agriculture	Fishing	Mining	Construction	Manufacturing	Commerce	Services	Total
Amazonas	1.0	0.2	0.3	1.2	0.4	0.5	0.6	0.6
Áncash	3.8	11.1	3.9	9.4	1.9	2.7	2.8	2.9
Apurímac	0.7	0.1	1.1	0.5	0.6	0.7	1.0	0.8
Arequipa	7.8	1.4	9.3	4.4	5.9	5.8	5.4	5.6
Ayacucho	0.7	0.8	0.5	1.6	0.6	0.9	1.4	1.1
Cajamarca	2.6	0.3	1.0	4.6	1.7	2.0	2.2	2.1
Callao	2.7	0.4	1.9	2.1	3.0	4.0	4.2	3.9
Cusco	0.4	0.5	0.8	1.1	0.3	0.4	0.4	0.4
Huancavelica	2.0	0.3	1.4	2.4	1.2	1.4	1.2	1.3
Huánuco	3.4	2.3	5.1	3.0	1.4	2.9	2.3	2.6
Ica	4.6	1.7	3.7	4.8	3.1	3.7	3.5	3.6
Junín	8.1	1.9	7.2	8.6	5.4	5.4	4.6	5.2
La Libertad	5.6	5.5	0.6	2.1	2.8	3.8	3.3	3.5
Lima	22.4	26.3	36.7	36.8	56.3	47.1	49.0	47.9
Lambayeque	5.2	2.6	0.6	2.2	1.2	1.8	1.7	1.7
Loreto	5.6	0.3	13.5	0.1	0.4	0.6	0.5	0.7
Madre de Dios	0.2	1.1	0.6	0.4	0.4	0.7	0.8	0.7
Moquegua	1.5	0.5	1.5	2.3	0.4	0.6	0.6	0.6
Pasco	4.1	4.2	1.5	3.8	2.7	4.1	3.8	3.9
Piura	0.6	27.5	0.8	1.6	3.2	3.0	3.8	3.2
Puno	1.1	3.4	5.9	1.3	2.7	2.0	2.0	2.0
San Martín	3.5	1.2	0.8	1.7	1.5	2.0	1.7	1.8
Tacna	1.1	0.7	0.9	0.8	1.5	2.0	1.4	1.7
Tumbes	1.1	5.0	0.1	1.4	0.3	0.8	0.6	0.7
Ucayali	10.1	0.6	0.3	1.7	1.0	1.4	1.2	1.5
Peru	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The bolded numbers indicate where the share of enterprises in each sector is higher than the share of enterprises in the region for the country as a whole.

Source: OECD analysis based on data from INEI.

Rural areas still play a key role in the national economy. The export sector, which has been such an important driver of Peru's growth, is primarily located in rural areas. Agriculture is an important industry for a majority of regions whereas mining is concentrated in fewer places. The structure and distribution of both industries is influenced by differing levels of informality. For example, the higher value commercial scale and export-orientated agriculture and fishing tends to be located in the coastal regions. Mining employment is important for a number of different regions; however, only four of these regions produce over 50% of value added. The employment analysis

shows that tourism is an important diversification strategy for some regions in the coastal and rainforest areas, which is both an urban and rural phenomenon.

In terms of business demography, the key feature of Peruvian industry is the higher proportion of microenterprises and lower proportion of small and medium-sized enterprises compared to OECD averages, particularly outside of the capital and secondary cities. This may be due to the level of informality in the economy, and the lack of incentives and support for microenterprises to grow and expand. The analysis of business by economic activity reveals the relative importance of clusters of business to different regions. These findings have important implications for the design of industry and innovation programmes, and the importance of a “place-based” approach.

Overall, this analysis enables us to build a picture about the complexity and interdependencies between different regions of the country. Many of Peru’s key comparative advantages – in terms of minerals, fresh water and fertile soils, fishing grounds, biodiversity, mountains and landscapes – are located in rural areas. These provide the foundation for industries such as mining and agriculture, where Peru is competitive in international markets. The capacity to move these goods to market and add value to them is dependent upon relationships with cities, and in particular the movements of goods and services through Lima-Callao. These cities are also key hubs for manufacturing and services which add value to Peru’s exports and imports. It is important that this territorial diversity and the interdependencies between regions are considered in the design and delivery of national sectoral and innovation policies.

Better linking national sectoral and innovation policies with a regional development agenda

Key considerations in relation to contemporary industry policy and product diversification strategies

In recent years, the national government has had a strong policy focus on promoting diversification of the country’s export basket. Diversifying the economy of a country, regardless of the specific challenges of Peru, is a complex issue which requires proactive and well-designed public policies (Hausmann and Rodrik, 2003). In the post-war period, many proactive approaches to industry policy have not achieved their desired objectives.

Modern industrial strategies have built upon Hausmann and Klinger’s (2007)² product space and the need to socialising part of the cost of innovation to foster “self-discovery” (Hausmann et al., 2003).³ Others such as Porter (2009) have placed emphasis on the need for the creation of development clusters which would allow full utilisation capacity of the comparative advantages of an economy in a self-enforcing cycle.

One of the factors of complexity of economic development is that experience has shown that it goes against the traditional logic of mere competitive advantages. Indeed, countries show changing levels of diversification depending on their level of wealth. As countries get richer they tend to have stronger sectoral and employment diversification, while beyond a high level of development – equivalent to Ireland’s current GDP per capita – they tend to have concentration patterns in their economy and labour force (Imbs and Wacziarg, 2003). Klinger and Lederman (2004) find this same U-curve phenomenon in the diversification of new exports.

Box 2.12. Diversification strategies currently being explored by Peru

Peru, via CONCYTEC, and in partnership with the Harvard Center for International Development, is currently undertaking a study on growth diversification. The approach is based on productive diversification strategies based on the product space map developed by Hausmann and Klinger. The rationale behind the argument is that the economic complexity index –computed based on the type of exported products– would be a better predictor of the income of a country than education variables, governance variables and competitiveness variables. Based on this argument, the objective would be to diversify the economy via product diversification, and complexification of the production by “jumping” across the product space towards more complex products, which would entail lower costs of self-discovery and lower co-ordination failures in the markets.

Preliminary findings of that study show that compared to other countries Peru has diversified its economy very little since 1962 (compared with other benchmark countries such as Mexico). Exported products are mainly to be found in products with low levels of complexity and in products that have few links with products at the centre of the product space which have higher complexity levels. According to this framework, Peru would be in situation with a relatively low complexity outlook and a low complexity index. In that sense, the policy advice would be to target strategic sectors that facilitate shifts toward the centre of the product space.

This analysis shows several interesting points and many lessons can be drawn from it. It presents a sharp and detailed vision of the productive fabric of the country, and puts emphasis on essential elements for product diversification such as co-ordination failures, and the accumulation of capacities in a sector that allows easier diversification to nearby products. The level of diversification and complexity of an economy is also associated with higher incomes. Therefore, productive diversification would be a great asset to lead Peru towards higher development levels.

Nonetheless, the relative significance of these findings and the direction of causation are not clear, particularly when analysing the contribution to per capita income growth of elements such as education, governance and competitiveness. Some of these elements may not be the biggest constraint depending on the level of development of a region, but gain importance as the development advances. Also, higher income countries tend to have themselves higher levels of education – and lower levels of the active population with little or no education, competitiveness and governance capacities. As discussed elsewhere in the report, lifting productivity across the economy is the key to the long-term sustainable growth of Peru.

Heterodox policies face two constraining issues. First, the information gaps, as it is difficult to know if new industries would be competitive given the cost structures of an economy. The market prices of an economy reveal little about the potential profitability of a reallocation of resources (Rodrick, 2004). Second, and this is particularly the case for small and open economies like Peru, entrepreneurs in new economic sectors face competition from other firms already installed in that sector. In order to become competitive, firms in these new sectors have to quickly reach critical mass and/or attain the levels of productivity of their competitors abroad before being able to take off.

Given that set of circumstances, it may be argued that seeking a productive diversification in the non-tradeable sector may be counter-intuitive. Nonetheless, the risk for a country like Peru to rely on a small base of capital-intensive and highly volatile resource-extractive industries is risky in the medium term – as shown by the issues generated by the recent decrease in the price of minerals – but also a constraint for long-term growth since linkages of the extractive industry with the manufacturing sector may not be sufficient to develop a large base of highly productive employment to continue to improve per capita incomes.

Nonetheless, in its attempt to develop a broader base productive fabric, Peru must bear in mind a series of lessons, which it has in some cases experienced itself. Strong

interventions of the state in choosing winners and losers have often failed to deliver (Barca, 2001; OECD, 2014a, 2014b). They tend to create state capture by private interests, misallocation and over-sizing of investments, and generate rent-seeking behaviour. Furthermore, when directed by central governments, they lack information and knowledge on the opportunities available.

Specialisation and complexity in production is also increasingly shaped and constrained by global value chains, which also reduces the importance of focusing solely on particular exporting sectors. Indeed, recent OECD studies have shown that much more important than the actual exports of a country are their place in the GVCs. In that sense, it is not so much what the country exports rather than value added and the types of imports used in exported products.

Box 2.13. Global value chains

Industry policies need to be adapted to the increasing importance of global value chains (GVCs). Globalisation and advances in ICT allow firms to fragment their production across GVCs. As a result, the relevant unit analysis is not the industry or sector, but the “business function” or “activity” along the supply chain (e.g. design, R&D, procurement, operations, marketing and customer services). Countries tend to specialise in specific “business functions” or “activities” rather than specific industries (e.g. assembly operations for the People’s Republic of China or business services for India). Specialisation no longer takes place solely in industries, but rather in functions or activities of the value chain (OECD, 2012b).

Multinational corporations account for over 80% of international trade, and they have both complex vertical and horizontal supply and value chains. In that sense, when accounting for exports, a better measure is the value added and the level of technological input produced in a country. There are several examples across OECD countries showing this phenomenon. For instance, a country such as Mexico has an important number of “*maquiladoras*” close to its US border, some states produce helicopters, important numbers of cars and other high value-added products. Nonetheless, a deeper analysis of the value added in those border states of Mexico shows that the latter are specialised in the assembly of high value-added components, with limited value adding and spillovers.

Territorial approaches can help in strategies to increase participation and value adding within GVCs, and enable the shift toward the public sector providing a range of integrated and specialised public goods, services and infrastructure to business. Place-based policies help identify the local potential for specialisation in the GVCs and help provide the right set of public goods to maximise that potential. The challenge in the age of globalisation is less to pick sectors to back on the international stage, as countries once sought to do, than to integrate into global value chains at whatever levels their endowments make them competitive (Baldwin, 2006; OECD, 2013c).

Furthermore, the focus on tradeable goods is indeed important, but the development of such products will also depend strongly on the real exchange rate. Two mechanisms may affect the competitiveness of the tradeable goods sector. The first is that of the Dutch Disease due to a rising exchange rate, as discussed in Chapter 1. The other effect, which may be coupled with the Dutch Disease – if it is at play – is more related to an inverted Balassa-Samuelson effect, whereby the too high prices in the non-tradeable goods sector crowd-out production factors of the tradeable good market thereby decreasing their competitiveness. Monetary policy and fiscal policy are in that sense relevant for the diversification of production in a country.

Box 2.14. Real multilateral exchange rate

The competitiveness Peru's exports and opportunities for diversification are also shaped by the evolution of the real multilateral exchange rate. Higher prices relative to other economies reduces the competitiveness of the tradeable sector, and shapes the scope, trajectory and pace of export diversification. This is particularly true for resource-based economies, which can be demonstrated by the increase in the real multilateral exchange rate for Peru during the commodities boom in the 2000s.

Figure 2.8. Peru's real multilateral exchange rate (2009=100)



Source: BCRP (2015), Banco Central de Reserva del Perú, <http://www.bcrp.gob.pe>.

In a more general way, the objective of productive diversification cannot be pursued without taking into account the need to enhance productivity in other sectors already present in the economy. Significant benefits can come from policies destined to increase productivity in currently low productive sectors. For instance, there is significant scope to increase productivity in agriculture and services, which will have important territorial implications.

Strong state interventions in industrial policies for productive diversification are based on the principle of the presence of “Marshallian externalities”, which implies that knowledge spillovers, labour pooling and supplier specialisation can arise from a concentration of production, which would in turn increase productivity in the sector. This could indeed be the case in some places, but these externalities may also not appear depending on the stages of development and the presence of growth constraints such as the ones mentioned above. Also, benefits from clustering may not appear unless the economy enjoys a comparative advantage in the sector. As pointed out by Rodríguez-Clare (2005), industrial policies should not be targeted at creating comparative advantages but rather at achieving high productivity where competitive advantages already exist.

Box 2.15. Productivity in the agricultural and services sector

Increasing agricultural productivity will decrease the employment rate in that sector. As shown in Chapter 1, close to one-quarter of the Peruvian labour force is employed in agriculture, whereas in advanced OECD countries, the labour force employed in agricultural production is generally lower than 5%. Nevertheless, this is a significant opportunity for Peru, given its age profile and population growth. Active labour policies, skills policies, and the development of governance mechanisms and enhancing rural-urban linkages will help manage these issues and allow Peru to take full advantage of this shift.

Finally, and consistent with the findings of Chapter 3, 60% of the labour force is in services, with most of this activity located in cities. “Getting the cities right” is fundamental to increase the productivity of services and the performance of the national economy. Services such as finance or software development and/or adaption can be important assets for the tradeable goods sector. As such, increases in productivity in services can have beneficial effects on the growth and diversification of the tradeable goods sector.

In that same line of analysis, the process of discovery matters often more than the outcome, since the outcome is by nature unknown. Policies that tend to focus on the discovery of underlying costs and opportunities via the creation of incentives for firms and governments tend to provide better outcomes (OECD, 2014b). Discovery processes tend to come with a corollary of a high number of mistakes, policies that incentivise discovery should allow mistakes to happen and not provide open-ended support for activities that do not take off. Focus therefore should be put on avoiding persisting in mistakes rather than on avoiding mistakes.

Box 2.16. How experimentation provides unexpected but positive surprises: The case of Finland

The emphasis on experimentation points to a final and very important conclusion: the outcomes of successful diversification policies will be difficult to predict. Policy makers should resist the temptation to try to define the production structure in the direction they believe the economy should evolve. Markets will always produce surprises, as Hayek (1988) famously observed.

The example of Finland is instructive. Its comparative advantage in forestry products is long-standing and obvious, but most of its other competitive strengths are not: not even the most well-informed economist could have foreseen its development of strong comparative advantages in such products as lifts, satellite navigation equipment, off-shore drilling equipment or – to name the most famous of all – cellular telecommunications. In 1990, the last of these products would hardly have merited a mention in any industrial strategy for Finland; ten years later, they were a cornerstone of Finnish growth, and a decade after that, the country as a whole felt the fallout from the rise of the iPhone, the eclipse of Nokia being as unexpected as its rise.

Yet new sources of growth rapidly began to emerge based on the human capital and infrastructure associated with the telecommunications sector. Finland thus continues to adjust, its success a product not of anyone’s ability to predict, let alone direct, the productive structure of the economy, but of a set of transversal, sectorial and regional policies that create conditions favourable to innovation and entrepreneurship.

Source: OECD (2014b), *OECD Territorial Reviews: Colombia 2014*, <http://dx.doi.org/10.1787/9789264224551-en>.

This analysis shows that “one-size fits all” industry strategies are unlikely to succeed. Peru is a territorially diverse country with quite different socio-economic and institutional conditions between regions. Self-discovery is of necessity a bottom-up process, so there

should be advantages in being able to address the co-ordination and information externalities closer to where they occur. While it is true that national governments are typically better equipped to intervene, in terms of resources and authority, the information needed for effective action is often local. Place-based approaches are an important element in contemporary sectoral and innovation policies.

Place-based approaches are central to new sectoral and innovation policies

This shift in sectoral and innovation policies is consistent with the paradigm shift in regional policies outlined at the beginning of this chapter. Whereas the old approach to industrial policy is characterised by governments providing subsidies to national champions, the contemporary role of government is as a facilitator in the face of complexity and uncertainty, enabling closer co-ordination between individual economic agents as well as greater experimentation in the economy (OECD, 2015b). By comparison with the earlier historical experience of industrial policy, so-called “new industrial policy” might be characterised as exhibiting some or all of the following characteristics (Warwick, 2013; Warwick and Nolan, 2014):

- greater emphasis on building networks, improving co-ordination and promoting awareness
- less reliance on direct support in the form of state aid and (market-failure correcting) subsidies
- greater emphasis on strategic (rather than defensive) industrial policy
- a shift away from sector-based strategies and towards certain technologies and activities.

These characteristics have shifted industrial policy closer to innovation policies, due to the perceived links between technological development and structural change in the economy. At the same time there has been greater recognition of the importance of ensuring that government only bears risk which is “proportionate”, e.g. enough to matter, not too much to lead to moral hazard. Policy makers are also increasingly cognisant of the need to plan for exit from the policy, and to make these plans known in order to help resist pressure from firms for the retention of government support and benefits.

One element of the emergence of new industrial policy is smart specialisation, which involves regional (and national) governments encouraging investments in domains that leverage endogenous assets to create future domestic capability and interregional comparative advantage (Foray et al., 2009). What distinguishes smart specialisation from traditional industry and innovation policies is mainly the process defined as “entrepreneurial discovery” – an interactive process in which market forces and the private sector are discovering and producing information about new activities and the government assesses the outcomes and empowers those actors most capable of realising the potential (Hausmann and Rodrik, 2003). As a result, smart specialisation strategies are much more bottom-up than traditional industrial policies.

Like traditional industrial policy, smart specialisation strategies aim to address market/systems and co-ordination failures. But traditional industrial policies required significant levels of information to justify subsidy support and they tended to be implemented in vertically integrated sectors with stable technological paradigms. In contrast, smart specialisation – as well as new industrial policies – recognises the lack of perfect information, the level of advancement of a given activity and the relative risks for policy. It focuses on helping entrepreneurs identify their knowledge-based strengths at the

regional level and in a more exploratory approach in which public decision makers listen to market signals using a range of assessment tools (e.g. SWOT analysis, surveys) and mechanisms such as public-private partnerships, technology foresight and road mapping. A recent OECD report on smart specialisation identified the following key policy messages (OECD, 2013a):

- Policies for entrepreneurial discovery. The smart specialisation approach calls for an “entrepreneurial selection” of market opportunities (e.g. to minimise failures and to avoid ill-informed policy decisions). While successful companies will constitute the new specialisation of the country/region (self-discovery), the role for policy is to develop a flexible strategy focusing on measurable intermediate goals, identifying bottlenecks and market failures and ensuring feedback into policy learning processes. The approach includes incentives to strengthen entrepreneurship and encourage agglomeration.
- Promoting general purpose technology platforms and networks. Given the range of applications of general purpose technologies, technology platforms involving public and private actors but also standards settings organisation can help increase productivity in existing sectors and help identify sectors in which to concentrate resources.
- Diagnostic and indicator-based tools and infrastructure. Smart specialisation requires regions and countries to maintain an infrastructure and indicator base to monitor and evaluate performance and policies.
- Strategic governance for smart specialisation. Good governance and the development of local capabilities are key to identifying local strengths, aligning policy actions, building critical mass, developing a vision and implementing a sound strategy. See below for a further discussion on governance.
- Openness to other regions. The specialisation strategy of regions should take into account that other regions are also involved in knowledge-creating activities and that duplication might lead to lower effectiveness and finally failure. Hence, co-operation with other regions with complementary capabilities and strategies is important.

Assessment of national industry policies

Peru has more than 60 productive development programmes led by different public entities, without an articulated strategy. This lack of co-ordination could generate overlap of programmes (beneficiaries, territories), unattended sectors and geographical areas, different approaches in the provision of services, difficulties in the monitoring and impact evaluation process, among others. Thus, the National Centre for Strategic Planning (CEPLAN), the Ministry of Production (PRODUCE) and the National Competition Council (CNC) along with other ministries related to productive development are guiding the strategic direction that Peru is taking with regard to industrial policy and enhancing competitiveness in territories. Moreover, the National Council for Science, Technology and Innovation (CONCYTEC), has taken the lead in addressing the country’s agenda for growing innovation.

Box 2.17. Smart specialisation: What does it mean?

The European Union has adopted the principle of smart specialisation as the basis for its territorial development policies in its Europe 2020 strategy, which defines a ten-year growth strategy for its member countries. The idea of smart specialisation emerged out of work by the European Union, the OECD and other intergovernmental bodies on the drivers of territorial development. This work found that regional economic policy was most effective when focused on supporting a limited number of sectors with global innovative potential that also drew on existing related regional economic strengths. From 2014, all European operational programmes for Structural Funds are required to be based on an RIS3 (Research and Innovation for Smart Specialisation Strategy) as a prior condition for the grant of funding.

The main principles of the EU's smart specialisation framework can be summarised as follows:

- Concentration of public investments in R&D and knowledge on particular activities is crucial for regions/countries that are not leaders in any of the major science or technology domains. Past policies tended to spread “knowledge investment” too thinly (e.g. higher education and vocational training, public and private R&D), not making much of an impact in any one area. However, concentration in the smart specialisation context is about focusing knowledge investments on activities – business functions carried out by firms which range from the conception of a product to its end use and beyond (e.g. design, production, marketing, distribution and support to the final consumer) (Porter, 1986; Gereffi and Kaplinsky, 2001). These activities (e.g. goods or services) may be undertaken by a single firm or divided among different (supplier) firms and be concentrated within one location or spread out over global value chains (OECD, 2012b). The emerging feature of many of these activities is that they increasingly cut across established sectors and industries.
- Smart specialisation relies on an entrepreneurial process of discovery that can reveal domains of economic activity where a country or region excels or has the potential to excel in the future. It empowers entrepreneurs who are able to combine the necessary knowledge about science, technology and engineering with knowledge of market growth and potential in order to identify the most promising activities. In this learning process, entrepreneurial actors have to play the leading role in discovering promising areas of future specialisation, because the needed adaptations to local skills, materials, environmental conditions and market access conditions are unlikely to be able to draw on codified, publicly shared knowledge, and instead will entail gathering localised information and the formation of social capital assets. One implication for policy makers is that this requires ensuring policy tools to collect the entrepreneurial knowledge embedded in the region to transform it into policy priorities. In this context, entrepreneurial actors are not only the people creating new companies, but also innovators in established companies, in academia or in the public sector.
- Specialised diversification: specialisation in selected activities that provide comparative advantage based on differentiation of their operations and products in global markets.
- The specific properties of general purpose technologies (GPTs) underlie the logic of smart specialisation. Invention of a GPT extends the frontier of invention possibilities for the whole economy, while the “co-invention of applications” changes the production function of a particular sector. GPTs are important for upgrading upstream and downstream of the value chain. The leading regions invest in the invention of a GPT or the combination of different GPTs (e.g. bioinformatics). Regions do not need to “lead” in these technologies to benefit. In fact, follower regions often are better advised to invest in the “co-invention of applications” around a GPT. Benefiting from GPTs generally also requires alignment with education and training policies in order to build capacity.

Box 2.17. Smart specialisation: What does it mean? (continued)

- Smart specialisation strategies are interlinked through complementary activities at horizontal level and require horizontal policy co-ordination. But they are in particular co-defined by the “vertical” alignment of entrepreneurial activity, partnering in clusters, regional development strategy and interregional and international arrangements that all are part of a multi-level governance structure for smart specialisation. Setting common goals therefore constitutes a powerful governance mechanism for the vertical alignment of these strategies, without jeopardising a market-oriented process of resource allocation. This multi-level governance co-ordination requires the synchronisation of both national strategies with regional strategies and the synchronisation of different regional strategies (e.g. innovation strategies, research strategies, industrial strategies), to support regional priorities.
- Structural change is a driver of economic growth. Smart specialisation aims to accelerate structural change by encouraging the transformation of economic activities from a structural perspective. It may in some cases mean modernising existing industries or enabling lagging sectors to improve their competitiveness through the adoption of ICTs, but for front-runner countries it can also mean developing new areas at the edge of the technological frontier.

Source: OECD (2014), OECD Territorial Reviews: Netherlands, OECD Publishing: Paris, <http://dx.doi.org/10.1787/9789264209527-en>.

CEPLAN and the Bicentennial Plan

CEPLAN is Peru’s central planning agency responsible for guiding and co-ordinating the National System of Strategic Planning. CEPLAN has elaborated a “Bicentennial Plan: Peru Until 2021”, which sets out the roadmap and goals for 2021, when Peru will celebrate the bicentennial of its independence. One of the six priorities of the plan is “economy, competitiveness and employment”. This includes a focus on stimulating the production of high value-added exports by establishing a logistics and information chain for international trade, supporting exporting SMEs, and promoting public-private alliances for greater infrastructure investment.

From this general policy direction, two priority objectives are being formulated, which have strong alignment with ideas associated with the product space. The first one focuses on developing a diversified productive structure that is competitive, sustainable and of high value and productivity. A second objective relates to increasing and diversifying exports, and accessing to new markets. A number of strategic actions are defined to achieve these objectives, including:

- creating a specific entity in charge of promoting new economic activities that are internationally competitive
- establishing support mechanisms for the development of productive chains
- developing industrial parks with a national, regional and local focus
- promoting the development of businesses and export chains
- linking SMEs with large enterprises and elaborating export-promotion schemes.

Closely linked to competitiveness, some of the plan’s other objectives target the science, technology and innovation sector and the promotion of knowledge and

technology diffusion for business innovation. Most of the actions defined for those are embedded in the National Council for Science, Technology and Technological Innovation's core strategy.

Ministry of Production and strategies to diversify production and exports

The Ministry of Production is responsible for designing, implementing and overseeing the development of industrial, microenterprise, SME and fishery policies developed as part of the National Production Diversification Plan (PNDP). The PNDP's objective is to increase Peru's growth in the medium and long term by relying on a greater productive capacity, the diversification of its production and a reduction in its dependence on the price of raw materials.

The PNDP is developed around three pillars, each foreseeing multiple lines of intervention:

1. the promotion of production diversification
2. the adaptation of regulations and administrative simplification
3. the expansion of productivity.

A Multi-sectoral Commission for Productive Diversification chaired by the Minister of Production has been established to implement the PNDP. The Multi-sectoral Commission also includes the President of the Council of Ministers, the Minister for Economy and Finance, the Minister for Foreign Trade and Tourism, the Minister for Agriculture and Irrigation, the Minister for Energy and Mining, and four representatives of business associations. The commission should help provide co-ordination between the different actions of the different ministries as well as identify synergies between programmes. The inclusion of the private sector should also allow priorities and programmes to be better matched with business needs.

The PNDP is operationalised through a number of different mechanisms, which include

- infrastructure and skills programmes (e.g. clusters, industrial parks, training schemes)
- funds for innovation and entrepreneurship (Innovate Peru and Start up Perú)
- service delivery platforms such as the network of centres for technological innovation (CITES)
- methodological instruments (e.g. economic research, information systems)
- working groups aligned with each of these pillars which are composed of national and regional government officials as well as representatives from the private sector and academia
- sectoral working groups comprised of members of academia and from the private and public sectors (four have been created so far: forestry, creative industries, textile and aquaculture).

The PNDP has sought to develop a holistic approach whereby it sees its action not only as part of an overall national strategy where co-ordination with other ministries such as education or agriculture is fundamental for certain of its actions. There are programmes of articulated interventions including the Ministry of Production, the Ministry of Development and Social Inclusion (MIDIS) and the Ministry of Agriculture and

Irrigation, showing positive steps towards cross-sectoral articulation of social policies with productive policies.

One of the most interesting elements for the strategy is the role of the CITES. The CITES provide several functions that have shown to be particularly useful for the development of industries such as Pisco (a brandy based on distilling grapes). This includes assistance to businesses in terms of demand development, technological transfers, research and innovation, the provision of technical classes, and test trial laboratories. Incentives could be set for further implication of regional governments in the CITES in order to provide both a further bottom-up approach and better local knowledge. For example, funding for innovation, which is currently allocated from the *canon*, could be directed through the CITES to maximise these synergies (see Chapter 4).

Box 2.18. Network of centres for technological innovation (CITES)

Role of the CITES

The CITES are probably the most representative intermediary institutions in the Peruvian innovation system. They were created in 2000 by the Ministry of Production (PRODUCE) to enhance the innovation capabilities of small and medium-sized enterprises (SMEs), foster their productivity and improve their ability to comply with international standards. They are essentially institutions engaged in technology diffusion and the provision of technical, certification, testing and training services for producers' associations in the sectors of activity in which they operate. They can also act as "knowledge brokers" between firms and other sources of expertise and technologies (universities, research institutes, consultants, international technical co-operation).

CITES have either a public or a private status and are accredited by PRODUCE. Public CITES receive institutional funding from this ministry and other revenues from the sale of their services to enterprises or producer associations or from project-related grants from international co-operation agencies (public or non-governmental organisations). Private CITES are not funded by the ministry. CITES' activities are overseen and co-ordinated by OTCIT, an office of PRODUCE, which provides assistance for the diffusion of technological information, project development and management. OTCIT is also involved in the certification of new CITES.

As of 2011 there were 14 active CITES (3 public and 11 private) operating in industries with previously well-organised conglomerates of SMEs. They cover nearly 6 000 SMEs and have very broad coverage in terms of programmes or instruments in the field of innovation in Peru. From 2006 to 2009, the number of enterprises assisted was quite stable, but more than doubled in 2010; the number of trained persons rose substantially; and the average annual number of transactions involving technological services was over 17 000. The largest increase in CITES' activities concerned the agro-industrial sector, owing to the need to increase productivity and develop innovative products for fast-growing external markets.

Private sector representatives and users, who pay for the services and thus contribute to the centres' revenues, positively evaluate CITES' actions. They recognise their impact and important role in helping SMEs to increase their productivity, export potential and product quality, at least in the first or less sophisticated stages, by facilitating the adoption of better technologies and practices and helping to increase their collaborative capacity and improve their social capital. However, as firms grow and begin demanding more sophisticated technological services, the CITES seem to be less effective and cannot always meet their needs, mainly owing to capability and budget constraints that prevent CITES from engaging in R&D, upgrading services and hiring highly skilled personnel.

Box 2.18. Network of centres for technological innovation (CITES) *(continued)*

The case of a successful CITE: CITE-Vid and the Peruvian Pisco

The development of the pisco industry during the 2000s, with exports increasing tenfold to USD 1 million in 2007, illustrates the positive impact of CITE-Vid, an intermediary institution which, along with private investment, improved co-ordination among the different actors in the pisco production chain and contributed to a move towards a more export-driven and innovation centred strategy.

CITE-Vid, the technological innovation centre for the pisco and wine industry, was created in 2000, based on the Spanish technological institutes. Its objective is to improve quality, productivity, information and innovation in the pisco and wine-making production chain and to support the domestic and international promotion of pisco. CITE-Vid played an important role in improving the organisation of small producers of pisco. It promoted their first consortium and provides technical assistance and infrastructure for wine and pisco producers in order to improve and standardise the quality of pisco, while preserving the essence of the traditional production process. In particular, it has facilitated closer links between the pisco industry and training and research institutions and universities, to a level that is quite unusual for Peru. This has led to the provision of diverse services and facilities, such as: training services, standardisation, technical assistance and technology transfer (from Argentina and Spain), laboratory testing services and market information linked to Conapisco action in the exploration and development of foreign markets. Revenue from sales of services increased nearly tenfold (from 2001 to 2007) and users evaluated positively the services provided by CITE-Vid, whose main contribution has been in raising pisco quality and developing new markets.

Further development

Based on their successful experience, the network of CITES has the potential to develop further in various directions:

- First, although CITES have steadily increased the number of firms they serve, their coverage is still rather limited compared to the number of firms that could benefit. Scaling up the CITE model to increase the coverage of SMEs and industrial sectors would help to accelerate the catching-up process and increase productivity in a wider base of the SME pyramid ready to engage in innovation activities as they upgrade their technological capacity to meet the demand of more advanced enterprises or export consumer markets. Such an expansion may be accomplished through the development of a new sort of CITE that would be neither a private nor a public institution but a public-private one. Cost sharing may help to draw more producers' associations into the CITE scheme.
- Second, as the technological capacities of enterprises served by the CITES increase, they require more sophisticated services. To respond to this demand, the CITES would have to develop their own applied research and technological development capabilities. Here again, in order to ensure a good match between supply and demand, the most effective model would probably be one that involves the private sector in the governance of the CITES in more intensive in applied research activities. Such centres could be public-private, with a share of their resources coming from performance-based institutional funding from budgetary allocations. Alternatively, they could be private, with applied research activities financed by revenues from research and technological services to producers (individuals or associations) and by competitive innovation funds such as FINCYT and FIDECOM. This model, with a gradual upgrading of applied research capacities and public support, has been successfully adopted in a number of countries and regions.

Box 2.18. Network of centres for technological innovation (CITES) (continued)

- Third, by increasing their S&T capacity, private CITES would be in a better position to engage in mutually beneficial S&T co-operation with public research institutions and universities. As CITES mainly operate at regional or local level, joint projects with regional universities might benefit from *canon* resources for their investment in R&D and technological development activities, including S&T equipment. This would apply to both public and private CITES.

Finally, to boost overall productivity in the industries in which CITES operate, it is necessary to complement their work with programmes to create links between SMEs and large firms, either through productive chain programmes (see below) or initiatives for cluster development in fields in which Peru has sound comparative advantages (mining, fishing, agribusiness, tourism, jewellery and apparel).

Source: OECD (2011b), *OECD Reviews of Innovation Policy: Peru 2011*, <http://dx.doi.org/10.1787/9789264128392-en>.

National Competitiveness Council and the Ministry of Economy and Finance

The National Competitiveness Council (CNC) was created in 2002 as a co-ordinating commission for competitiveness issues. The CNC is composed of a Technical Secretariat, a Board of Directors which includes 5 ministries (Presidency of the Council of Ministers, Ministry of Economy and Finance, Ministry of Production, Ministry of Foreign Trade and Tourism, Ministry of Agriculture and Irrigation), representative members of the private sector, and local and regional governments. The Competitiveness Agenda (2012-13 and 2014-18) was prepared by the CNC's Technical Secretariat in co-ordination with several sectors (public and private) and approved by its Board of Directors. This agenda defines the strategic objectives and priority targets of the country in order to improve its competitiveness and has 8 strategic lines of action with 65 goals. These strategic lines of actions are: 1) production and business development; 2) science, technology and innovation; 3) internationalisation; 4) logistics and transport infrastructure; 5) information technology and communications; 6) human capital; 7) business facilitation; 8) natural resources and energy. This agenda provides a framework to prioritise and co-ordinate efforts to increase Peru's productivity and competitiveness.

The Competitiveness Agenda is highly aligned to the National Plan of Productive Diversification (Ministry of Production), the National Policy for the Development of STI (National Council of Science, Technology and Technological Innovation), the National Strategic Export Plan (Ministry of Trade and Tourism). Through this agenda the CNC seeks to emphasise the most important aspects of these plans and integrate them into its initiatives and projects. In addition, the CNC seeks to co-ordinate with subnational governments to increase their competitiveness and attract investment. As outcomes, these activities have led to improvements in business facilitation at the regional and local level.

In 2013, the National Competitiveness Council, as part of the Productive and Business Development strategic line, promoted the clusters mapping exercise intended to generate information for the national policy of clusters and the Clusters Support Programme. This programme was established in co-ordination with ministries and entities in charge of the productive sector (Ministry of Production, Ministry of Foreign Trade and Tourism, Ministry of Agriculture and Irrigation, National Strategic Planning Centre, National Council for Science, Technology and Innovation, among others). The clusters

were studied according to the criteria shown in Table 2.10. Forty-one criteria were identified as a result of this exercise. Subnational governments were not involved in the selection of these clusters, which would be important for future policy directions. Some of these clusters would benefit from a greater level of specificity, for example, by drawing on the business demography data presented in the previous section of this chapter.

Table 2.10. **Objectives and criteria to analyse clusters**

Objectives	Criteria for analysis of the clusters
Measuring the growth potential based on the productive offer and market demand	– Competitive advantage of the cluster – Growth potential of the business
Measuring the importance of the cluster at the country and regional levels	– Dragging effect of the chain in terms of businesses, occupation and technology – Business critical mass
Measuring the level of effort necessary to respond to challenges	– Feasibility of the cluster initiative

Table 2.11. **Top clusters and ranking identified – National Competitiveness Council**

Clusters	General ranking
Mining, centre, auxiliary mining, Lima and Arequipa	1
Prêt-à-porter/fashion, Lima	2
Cultural tourism, Cusco	3
Wool fibre, Arequipa – Cusco – Puno	4
Logistics, Callao	5
Construction, Lima	6
Fishing: Flower and fish oil, coast	7
Fishing: Frozen fish and canned, coast	8
Gastronomy and food service, Lima	9
Coffee, north	10
Health, Lima	11
Software, Lima	12
Auxiliary agro-food, Lima	13
Fruits and vegetables, coast	14
Meat, Lima	15
Mango, Valle de San Lorenzo and Chulucanas (Piura)	16

Clusters are a common strategy across OECD countries to organise policies for promoting innovation (OECD, 2011a). However, there are a number of risks that need to be considered when designing and delivering these initiatives, including the risk of locking in dependency relationships with the public sector, and “wishful thinking” clusters that seek to replicate success elsewhere and do not build upon existing assets and strengths.

The management of natural resource and energy supply – namely water and electricity supply – has also been included in the national Competitiveness Agenda. The CNC is working with the National Water Authority (ANA) and the Ministry for Agriculture and Irrigation on the development of the National Irrigation Plan and the National Water Information System Resources. As far as access is concerned, the Competitiveness Agenda 2014-2018 sets two goals: the creation of new hydroelectric plants (providing an additional 2 480 MW to the system) and the expansion of transmission lines (for an investment of USD 1.25 billion). In collaboration with the Ministry of Energy and the private sector, it is seeking to develop a mechanism to increase the financing capacity of the electricity distribution companies of the government.⁴

Box 2.19. Implementing cluster policies: Key lessons from across the OECD

- Identify explicitly what the national level's interests are, what the barriers to achieving those goals are, and how a cluster approach can help overcome these problems. Goals are often vague (enhancing competitiveness, promoting innovation).
- Determine a cross-ministerial strategy for national level intervention. The proliferation of national programmes promoting clusters makes this increasingly important.
- Work together with regional levels in programme development for capacity building, coherence and complementarity.
- Structure the programme to minimise the associated risks, such as picking winners and lock-in. The public sector is not well placed to predict sectoral trends and evolutions in business strategy.
- Ensure sufficient private sector engagement, as its motivation is required for long-term partnerships and its skills for reactivity to market changes. The private sector must see the benefits of the instruments available.
- Be clear about what the targets are and realistic with respect to funding and programme duration.
- Ensure that programmes have a range of instruments for adaptation across the targets (cluster types, region types, etc.). A national level programme requires even greater flexibility.
- Set outcome measures, even if it is difficult to evaluate the causal relationship of public policy on private action. This serves to clarify programme goals and feasibility.

Source: OECD (2007b) *Competitive Regional Clusters: National Policy Approaches*: OECD Publishing: Paris, <http://dx.doi.org/10.1787/9789264031838-en>.

The Ministry of Economy and Finances and support to productive competitiveness

The MEF has also established the Law of Support to Productive Competitiveness (*Ley de Apoyo a la Competitividad Productiva, PROCOMPITE*) as an arrangement in support of productive competitiveness in the jurisdictions of regional and local governments through offices for programming investment (*oficina de programacion de inversiones*). The offices are in charge of authorising each initiative of Support to Productive Competitiveness, the so-called PROCOMPITE.

The objective of PROCOMPITE is to improve the competitiveness of productive chains through the development, adaptation, improvement or transfer of technology in zones where private investment is insufficient to achieve the competitive and sustainable development of the productive chains. PROCOMPITE is primarily aimed at business initiatives that rely on high technology and innovations to improve their productive capacity for goods or services. One of the pre-requisites for the implementation of PROCOMPITE in regional and local governments is to prioritise areas for intervention.

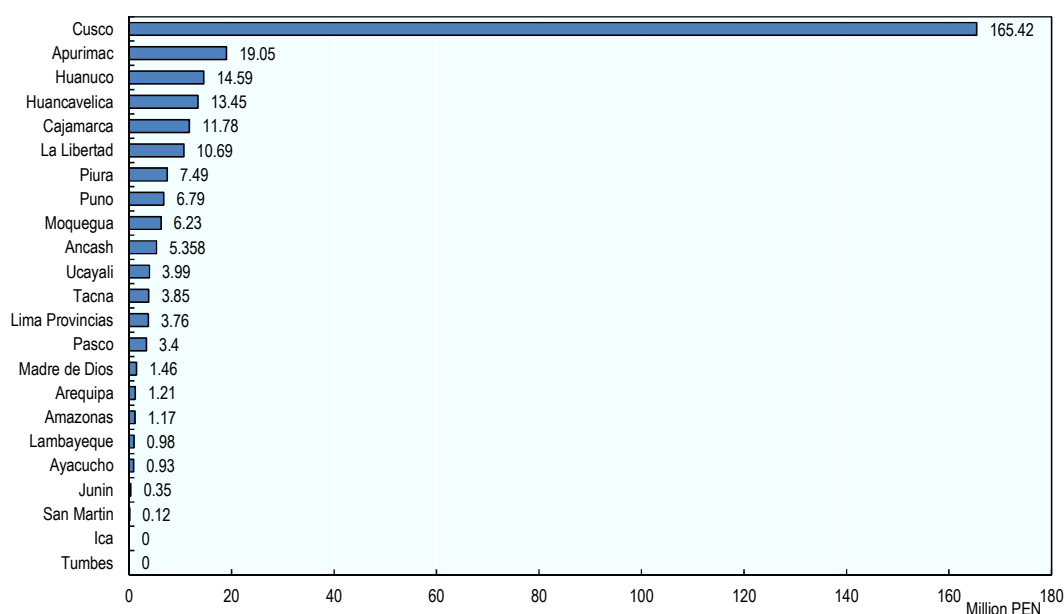
Regional and local governments have an important role to play in the execution of the development strategy of PROCOMPITE. In addition to identifying local and regional priorities, their responsibilities include resource management, the organisation of the competition process, the financing of business initiatives, and the execution of investments and the phase down of public support to the business.

To cope with such a large set of responsibilities, regional and local governments can dedicate up to 10% of budgetary resources for project spending, with the exception of resources coming from funding sources of official credit operations, donations and transfers. In March 2015, 17 programmes were implemented in regional governments, 64 in provincial municipalities and 130 in district municipalities.

Table 2.12. **Number of subnational governments engaged in PROCOMPITE, 2009-15**

Regional government/municipality	Dedicated resources, (million PEN)	Approved funding	Executed funding
Regional governments	18	15	15
Provincial municipalities	66	38	36
District municipalities	136	93	83
Total	220	146	134

Figure 2.9. **Distribution of funding from PROMCOMPITE, by region, 2009-14**



Source: Data from the Ministry of Economy and Finances.

This initiative is particularly interesting because of the role of subnational governments in identifying priorities and delivering the programme. However, an evaluation of the programme found little positive impacts because it acts as a subsidy to micro-businesses rather than a fund providing seed capital. There is little or no evidence that the fund helps provide better life expectancy to business once public funding has been withdrawn. In addition, the distribution of the fund has been uneven, which indicates the need for complementary initiatives to improve the skills and capacities of regions to identify priorities and deliver the programme. There is also an opportunity to redesign the fund so that it has a greater focus on co-investment and growth potential (Box 2.20).

Box 2.20. Core regional growth areas in Brandenburg (Germany)

Brandenburg is a region which was part of the former German Democratic Republic (GDR). After reunification, like many areas in the former GDR, the region experienced a restructuring of its industrial base, and received significant subsidies and support from the national government.

In recent years, the region has experienced a shift in its development approach from a mentality dominated by subsidies and transfers towards one more focused on growth potential. Since unification, the regional and local authorities have put tremendous efforts into mobilising local actors and firms to take part in the development process with the gradual phasing out of subsidies in 1995 as part of the Solidarity Pact.

With these goals in mind, the region established a new policy identifying 15 core regional growth areas with high growth potential in 2004. These “growth poles” receive preferential financing, which is conditional upon them displaying endogenous growth potential. The growth poles are also required to design integrated development strategies which are integrated with the region’s overall development strategy. Additionally, growth poles are required to spread some of their benefits to other territories.

This policy has been an important element shifting the mentality in the region, resulting in a new spirit of competitiveness. The policy deliberately targeted enough growth poles to create a diverse development pattern and induce other areas in the region to focus on their own growth potential and potentially also become growth poles. The 15 growth poles are home to 35% of the population and have so far generated positive initiatives of co-operation between towns. The growth poles have been a key element in supporting the economic transition and growth of the region.

Source: Advice provided by Land Brandenburg (2011), <http://www.brandenburg.de/cms/list.php/bbstart>.

National Council for Science, Technology and Innovation

CONCYTEC’s National Strategic Plan for the Development of Science, Technology and Technological Innovation for Competitiveness and Human Development (2006-2021) (PNCTI) places science, technology and innovation (STI) as a key component of the national product diversification strategy. The plan aims at ensuring the co-ordination of the actors of the National System of Sciences, Technology and Innovation (SINACYT) to address the technological demands of the prioritised strategic areas in the country. Although it has a sectoral focus, the PNCTI is aligned with the new industrial policy approach and focuses on building capabilities in science and technology, and technological transfers and diffusion to enhance competitiveness and increase value-added creation. The priorities set by the plan are:

- promote the development and transference of innovation technologies to firms, increasing their competitiveness and added value based on economic and environmental sustainability criteria
- propel scientific and technological research oriented to solve problems and meet demands from prioritised strategic areas of the country
- improve qualitative and quantitative human capabilities in STI, emphasising capacity building through post-graduate studies and specialised fields
- foster the creation and strengthening of efficient and sustainable mechanisms of co-ordination, information sharing and decentralisation of STI.

Later, the National Policy for the Development of Science, Technology and Technological Innovation was set as the first STI policy in 2016. The policy has six priority objectives:

1. promote the generation and transference of scientific and technological knowledge, aligning research results to the needs of the country (defined by the priority sectors)
2. promote and develop new incentives that stimulate and increase STI activities by the actors of SINACYT
3. promote the generation of properly qualified human capital for STI
4. improve the quality of research and technological development centres
5. generate information of quality about the development of the actors of SINACYT
6. strengthen the institutional framework for STI.

This national policy will be supported by a suite of existing sectoral or transversal programmes which provide incentives for the private sector to collaborate with researchers. Sectoral programmes focus on 12 key areas, which include, among others: agriculture, medicinal plants, fishing, health and mining. On the other hand, transversal programmes correspond to the scientific and technological specialisation areas connected to the sectoral programmes. The latter focus on six key areas:

1. Program for the Appraisal of Biodiversity
2. Program of Biotechnology
3. Program of Science and Materials Technology
4. Program of Science and Environmental Technology
5. Program Information and Communication Technologies
6. Program for Basic Research.

As part of this policy, CONCYTEC will support the elaboration of “regional agendas for innovation” (RAI) to provide a territorial application of this policy. It aims to promote a regional approach to STI policies, programmes and projects as well as to strengthen the institutional capacity of regions to implement innovation strategies and generate their own policies. Piura and Arequipa will be the first regions to develop their RAIs, following the RIS3 methodology.⁵ This is an important policy direction and signals a greater role for regions in sectoral and innovation policies. To serve its mission, CONCYTEC has been assigned the National Fund for the Development of Science, Technology and Technological Innovation (FONDECYT). It is also, with INEI, elaborating the first National Census for Research and Innovation.

There needs to be a stronger role for regions in national sectoral and innovation policies

There is strong alignment between the different strategic plans which have a joint focus on increasing the diversity and complexity of Peru’s export base. However, the design and execution of these plans is led by national agencies and reflects a top-down approach to industrial policy. Central government actors have led the design of each of the above-mentioned plans and the strategic actions they encompass, including the definition of sectoral agendas. Addressing Peru’s competitiveness challenges only from the lens of the central government may limit the country’s economic transition.

For example, the priority clusters mapping exercise, led by the National Competitiveness Council, is designed to inform the development of national policies to support cluster development. This exercise involved seven central government agencies,

three of which are the leading co-ordinators of the Clusters Programme developed as a result of the priority mapping exercise. While in many countries regional governments would take a leading role in identifying and developing the clusters, the role played by regional governments in Peru remains unclear.

Regional governments and other local actors such as representatives of the private sector are central to the development of sound industrial and innovation strategies. Their knowledge of local assets provides them with the advantage of better identifying policy complementarities and place-based opportunities. Their involvement can significantly improve policy integration across sectors based on the different needs and competitive advantages of their regions.

The Policy Strategy for Territorial Innovation and the Regional Strategy for Innovation are important in terms of shifting toward a smart specialisation strategy for Peru. Unlike traditional industrial and innovation policies, smart specialisation strategies rely on a bottom-up process of “entrepreneurial discovery” driven by the private sector. Instead, Peru is engaging in a framework led by the central government, which is responsible for defining the country’s strategic sectorial directions without the extensive involvement of regions in agenda setting.

Partnerships with regions will need to be developed in an asymmetric way which recognises the territorial diversity of the country. Peru’s regions are at different stages of development, possess local assets of different competitive value and have different institutional capacities. The overall lack of a regional focus in sectoral and innovation policies is likely to result in diminished impacts depending on the regions, with better performing regions continuing to perform well and engaging in greater product diversification, while the potential of other regions is not being exploited. The list of priority clusters and their regions identified as part of the Clusters Programme may illustrate this point as Lima is over-represented and no strategy is put in place to best take advantage of under-represented regions’ untapped resources.

Another key point for Peru will be improving the underlying framework conditions in terms of the quality of institutions, infrastructure and skills. Product diversification is likely to happen in regions with higher levels of quality human capital. Policies that seek to increase the quality of education and provide training in fields of relevance for the different regions could significantly contribute to the development of competitive regions and the better exploitation of local assets. Integrating national sectoral policies with regional strategies should allow Peru to support not only a more harmonised regional growth, but also more competitive industrial development across the whole of its territory.

Providing better institutional support capacity for regional development

In order to deliver a regional approach to industrial policies, key considerations for Peru will be better co-ordination and alignment between levels of government, and measures to build capacity to design and execute these policies at a regional level. In terms of mechanisms to strengthen vertical co-ordination, OECD member countries employ various mechanisms. These mechanisms include a mix of national strategies with clearly defined goals for public investment, national territorial representatives, nationally funded regional development agencies, contracts and formal agreements between levels of government (OECD, 2007), co-financing, formal consultation processes, platforms for regular inter-governmental dialogue, and *ad hoc* co-ordination arrangements. Their application depends on the national context, the issues to be addressed and the objectives to be realised.

Box 2.21. Key vertical co-ordination mechanisms for regional development

- Co-financing of public investment is among the most basic forms of national/subnational co-ordination. It brings together the commitment of national and subnational actors to the success of a project. National co-financing to ensure that national priorities are reflected in regional development projects, and conversely, regional priorities can be reflected in the design and execution of projects undertaken by the national government. It can also be an important mechanism for risk-sharing on particular investment projects. A pre-requisite is of course that there are ample funds at the subnational level to co-finance.
- Special conditions (“conditionalities”) are often associated with co-ordination for public investment. There may be conflicting or complementary agendas for the purpose of the investment depending on the perspective at each level of government. For example, construction of major new transport infrastructure may be seen by the national government as a tool to facilitate trade flows. The region, by contrast, may be more concerned with using its procurement activities associated with the project to promote the development of local small and medium-sized enterprises. And local authorities may be chiefly concerned with minimising the noise and other negative local externalities. That is why higher levels of government often include particular conditions in the financing or co-financing of different public investments.
- Contracts are the formalised arrangements that are generally used to co-ordinate investment between national and subnational governments. In most cases this implies some form of co-financing and conditionalities. They are quite powerful instruments for cross-governmental co-ordination: they are frequently concluded by high-level political actors and they often include both dedicated budgets to ensure implementation and clearly defined mechanisms to resolve any conflicts that arise.¹ They are used in around half of OECD countries (OECD, 2013a) and are common in federal as well as unitary countries contexts (e.g. Canada, France, Italy, Portugal, Spain). Contracts are often designed with high-level engagement and specifically dedicated multi-year budgets. They can help foster partnership rather than a top-down approach, and contribute to capacity building. They can also provide a flexible, tailor-made framework that can clarify assignment of responsibilities across levels of government that are otherwise often imperfect.
- Subnational forums are also utilised with most federal countries creating platforms to exchange information on policy objectives between the different levels of government. In Germany, for example, there are so-called “conferences” or “joint tasks” in specific sectors, like science or regional development, in which different levels of government regularly gather to determine policy priorities. In the United States, several bodies exist, including the White House Rural Council and regional commissions. In addition, national level investment planning relies on investment plans drawn up at the subnational level. In Canada, there are two instruments: one horizontal and the other vertical. The provinces meet amongst themselves to determine investment priorities, while federal arms of the government are represented in the provinces, via structures such as the regional federal councils or the regional development agencies. Their interests lie not only in representing the central government’s priorities in the provinces but also in conveying provincial preferences to the federal authorities.

Note: 1. The typology of contracts identified in earlier OECD work lends itself to distinguishing contracts according to their programme or project nature. “Transactional” contracting involves an *ex ante* determination of the complete set of binding and enforceable rights and duties of the parties. By contrast, “relational” contracting involves parties committing to co-operate *ex post* (after the signing of the agreement) and supervision of compliance with the agreement tends to be project-based, bilateral, relying on a co-operative spirit. In practice, most contracts are characterised by both transactional and relational elements and fall somewhere on a continuum from being pure transactional to pure relational contracts (OECD, 2007).

Source: OECD (2014a), *OECD Regional Outlook 2014: Regions and Cities, Where Policies and People Meet*, <http://dx.doi.org/10.1787/9789264201415-en>.

In the case of Peru there are a number of different levels of co-ordination required in terms of sectoral and innovation policies. National ministers responsible for key policies will need to work together more effectively. There is a large variation in economic conditions and governance capability across the country, and a need to better integrate these national policies at a regional level. This vertical co-ordination needs to occur within a complex governance system. The national government will need to better co-ordinate with a large number of subnational governments (24 regions, 196 provinces and 1 854 districts) in an efficient way which accounts for this diversity and differences in capability.

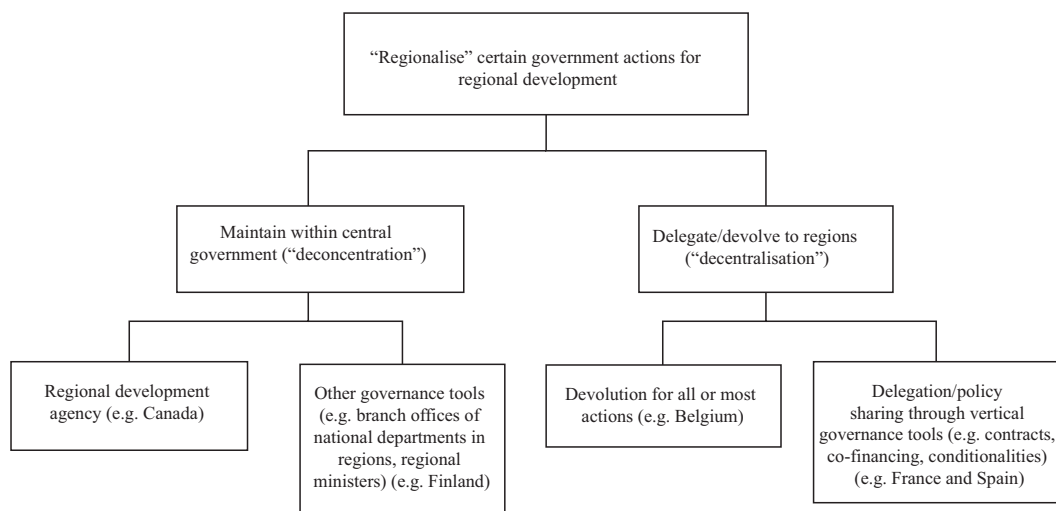
Peru already has a number of mechanisms in place to facilitate intergovernmental co-ordination in the context of the decentralisation process. This includes the Inter-governmental Coordination Council, which aims to co-ordinate and promote recommendations on policies, strategies and actions related to the decentralisation process, and inter-governmental commissions, which have been established on a sectorial basis (e.g. health, education) to facilitate collaboration between national and subnational governments. However, these existing institutions are not equipped to address challenges related to the effective delivery of regional policies. These challenges are:

- gaps in critical skills and capabilities at a subnational level, including policy development and evaluation, strategic planning, procurement, and project/programme delivery
- lack of co-ordination in how priorities of the national ministries are included in the planning and policy cycle at a subnational level (and vice versa)
- gaps between strategic plans and fiscal frameworks at a national and subnational level
- fragmentation of public investment and services at a regional and local level
- variations in the quality and implementation of key planning instruments
- lack of systemic co-operation between regions.

It is important that these challenges are addressed in partnership between the national and subnational governments (in particular the regional level). This institutional support would have an overarching focus on ensuring better co-ordination and alignment of policies, and improving skills and capabilities at a subnational level. One option for this institutional support is to create a deconcentrated agency of the Presidency of the Council of Ministers/Ministry of Economy and Finances. This would involve both entities jointly establishing an administrative office in each region or at a macro-regional level, and working in partnership to execute functions which are designed to address the challenges outlined above.

Another option for the national government may be establishing regional development agencies (RDAs) which include the regions in the governance of this entity. There are a number of key policy choices and issues in considering these options. RDAs and deconcentrated agencies of different forms are common in OECD countries and focus on delivering integrated approaches to regional policies (OECD, 2015c). While regions may have authority to initiate at their own discretion, the choice for central government action is nested in a set of alternatives, many of which may be used simultaneously (Figure 2.10).

Figure 2.10. Choices for central government action: Regional development agencies and alternatives



Source: OECD (2015c), *Regional Development Agencies (RDA): a tool for regional development*, Paper for the 33rd Session of the Regional Development Policy Committee.

A central government may create a network of RDAs as a tool for implementing its regional development policy and/or building regional capacity. Alternatively, RDAs may be created by an intermediate tier of government (regions, states, provinces, groupings of municipalities, etc.). The national model of RDAs has a more active role in bridging national actions or funding with regional needs. The board to which it is accountable may be composed of regional stakeholders and not include the central government, but the central government may still play a fundamental role via funding or other forms of oversight. In a more decentralised context, it may be the choice of individual regions to establish an arm's-length entity to deliver on a regional economic development strategy, and in some cases to help shape the strategy itself.

In most OECD countries with a national RDA network, the impetus for creation was to build capacity at the regional level in a centralised country context. The institution of RDAs or structures of a similar purpose has been driven in many OECD countries by the EU accession process, notably for countries in Eastern Europe, such as Hungary. The creation of these national networks of regional agencies is designed to map to statistical areas that would receive EU regional policy funds. EU engagement with Turkey was one of the drivers, among others, behind the development of its national model. The Inter-American Development Bank co-financed the development of Chile's national network of 15 RDAs. In several of these examples, the central government has worked to embed these agencies in the regions over time for a greater sense of regional "ownership", albeit Hungary has chosen to recentralise its network.

RDA networks tend to enable a more targeted approach focusing on business development. Several national RDA models are actually not multi-sectoral, with a focus on several policy sectors (business development, skills, rural or urban issues, etc.). The models in Chile, the Czech Republic, Iceland, New Zealand and Turkey, for example, address one or more of the following: business support, cluster development, innovation programmes and investment attraction. They therefore do not actually address this goal of complementarity, but are rather more focused on action as a one-stop shop for firms to get information on programmes delivered by the agency itself or other sources.

Another goal may be for the RDAs to conduct some form of “regional proofing” of policies as they arise. Depending on the design of the RDA feedback mechanisms to central government, the RDA may, or may not, be the ideal tool to achieve this goal. In Canada, following the last elections, RDAs are now part of the portfolio of the Minister of Innovation, Science and Economic Development along with the Department of Innovation, Science and Economic Development. In this way, Canada has an RDA minister that represents regional perspectives at various Cabinet committees, which is an integral element to the RDA design. This allows the ministers to raise regional considerations/issues when policies are being discussed. The former RDA model in England had ties to regional ministers, albeit much less institutionalised than in Canada. Regional ministers and other tools such as a central government unit to “proof” policies, before they are fully conceived and implemented, may be better able to represent regional interests in national policy-making processes than an RDA per se.

The choice of an agency model may be used to address greater accountability, such as through performance indicators. The English RDAs were subject to extensive review, including four generations of performance indicator monitoring in the just over a decade of their existence (OECD, 2009a). Canada’s RDAs are subject to performance monitoring, as are other federal departments and agencies. Turkey is in the process of developing a performance indicator system for its RDAs. The national culture of performance monitoring, or obligations from another level of government (such as the EU for its Investment Funds), are likely the most important factors, irrespective of the choice of an agency model or other institutional form. Certain aspects of accountability can be addressed outside of an agency structure, through performance management in general or through co-financing arrangements and contracts that stipulate the goals to achieve and the sanctions or rewards with respect to performance.

The RDA tool may be used to deliver policy at a more adapted spatial scale when there is no regional tier or it is too small a scale. The Turkish model corresponds to statistical regions that don’t match a full-fledged regional government. In contrast, the Canadian RDAs are not specifically designed to cover a functional region directly; rather, for the most part, they are assigned a coverage area that is typically significantly larger than a potential functional region. In other country examples, the national RDAs are assigned to cover an administrative region. An alternative to a national RDA policy is a set of incentives for inter-regional collaboration when the regions are not of sufficient scale. For example, Switzerland’s cantons are in several cases at a scale that is perhaps too small for certain aspects of regional development. To address this challenge, the federal government’s New Regional Policy offers incentives for cantons to collaborate to access funding to achieve actions at a more relevant scale than would have been achieved otherwise.

In practice, several countries combine the use of an RDA with other governance tools. As mentioned above, one of the most powerful elements of the Canadian model is the fact that the RDA minister represents regional perspectives at various Cabinet committees. Turkey’s RDAs were created along with 100-member regional development councils. The purpose of these councils is to build a culture of public-private interaction for regional strategy building and it is an integral part of the efforts to build capacity at subnational level. The English RDAs were complemented by the pre-existing Government Offices with central government representation covering the same regions, as well as regional ministers. The choice to develop an RDA network therefore does not stop with the RDA itself, but also concerns the design of the model and the complementary governance tools.

Box 2.22. Turkey’s new national regional development agency model

Background

The current network of regional development agencies (RDAs) in Turkey was established between 2007 and 2009. Among other factors, alignment with EU approaches to regional policy was an important factor to their establishment. The initial phases of the RDAs focused on establishing the institutions themselves and building institutional capacity at subnational level. The Ministry of Development oversees the agencies and the Higher Council of Regional Development approves the regional development plans the RDAs are tasked with developing.

The 26 agencies cover the country’s 81 provinces, with coverage ranging from 1 to 6 provinces depending on the region. The 26 “regions” correspond to the NUTS II level statistical unit principles used by the European Union. The National Development Plan (2014-2018) has a stated goal of strengthening the connections across the RDA network.

Roles and responsibilities

These RDAs have three key functions: 1) planning, research and analysis; 2) conducting grant programmes for profit and not-for-profit institutions; 3) promoting and supporting investments and promoting their region. They also play capacity-building and service delivery roles. Capacity building includes: technical support for local authority planning studies; capacity improvements for rural and local development; improving co-operation between the public, private and non-profit sectors; and ensuring research on the resources and opportunities of regions. Business support roles include promotion of business and investment facilities, supporting the administrative process for investors in the regions, supporting small and medium-sized enterprises and start-ups, and supporting other activities to ensure implementation of the regional plan.

Ministerial linkages

The State Planning Organisation is responsible for co-ordination of the agencies. They are under the line authority of the Ministry of Development for final approval of the regional development strategies and corresponding work programmes. In addition to the Ministry of Development, the RDAs are also increasingly taking on roles on behalf of other national ministries such as the Ministry of Economy (for delivery of incentive programmes for selected industries, investment programmes, R&D incentives, etc.). There is tendency for the RDAs to increasingly serve as a one-stop shop for firms to access different national programmes.

Oversight and management

Agencies comprise a Development Council as well as the RDA Administrative Board and General Secretariat. The Development Council is a public-private platform to include (maximum of 100) local authorities, private sector representatives, non-governmental organisations (NGOs), universities, etc. This body can make recommendations to the RDA in an advisory role via its feedback in meetings (at least twice per year). While some regions have tested *ad hoc* working groups within the development councils, in the future some form of leadership group within the development councils may be established to facilitate an increasing role in RDA oversight. The Administrative Board is the decision-making body composed of the provincial governors, the mayors of metropolitan or provincial municipalities, chairmen of the provincial councils, and chairmen of the chambers of commerce and/or industry. The Administrative Board Chairman represents the agency and is always a provincial governor; rotating on an annual basis if the RDA covers more than one province. The Administrative Board is supported by a Secretary General and the Secretariat that implements decisions of the Administrative Board and prepares the work plans, manages finances, supports projects and provides technical assistance.

Funding

The resources are grouped into a single pot. Funding includes mainly appropriations by the High Planning Council (based on population, level of development and performance of each agency), international funds (including the European Union), funds from own activities, 1% of yearly revenues of the special provincial administrations, 0.5% of yearly revenues of the municipalities, and 1% of yearly revenues of the chambers of industry and commerce. Since 2008, the central government has provided EUR 630 million (67%) and local institutions (municipalities, special provincial administrations, chambers of commerce and industry) EUR 310 million (33%) to RDAs.

Box 2.22. Turkey's new national regional development agency model (*continued*)

Instruments

Within the context of national rules regarding requests for proposals, the RDAs may adapt some of their programmes for local needs within a set of common instruments across the country. The variations may include the sectors for support or the types of organisations (in some cases this may be an NGO), etc. Any RDA actions must be in compliance with national policy and international agreements, therefore support to certain sectors may be restricted. In addition to business support-related measures, RDAs also have an explicit technical assistance role (see description of mission above). Local institutions may apply for training, human resource development or other capacity-building needs. The RDA can either provide services directly or contract out those services. The RDA may also support certain infrastructure investments for innovation and business development. RDAs also provide promotion of business and investment facilities, supporting administrative processes for investors through investment support offices established in each province. Since 2008, RDAs have supported more than 12 000 projects, through all modalities, by allocating nearly EUR 770 million.

Performance monitoring

The original law does not specify any overarching performance targets/indicators of RDAs, but does require performance evaluation by the Ministry of Development and an evaluation/impact evaluation by RDAs of their own programmes after two years. The Turkish government is looking into the development of a performance evaluation system. To facilitate evaluation of individual programmes, the national government has provided all RDAs with a standardised management information system. This harmonised tracking tool for all entities supported by the RDAs and implemented across the country facilitates evaluations of specific programmes and their impact on recipients. The system is recognised by the OECD Observatory of Public Sector Innovation (OPSI).

Source: OECD (2015a), *Multi-dimensional Review of Peru: Volume 1. Initial Assessment*, <http://dx.doi.org/10.1787/9789264243279-en>.

Box 2.23. Canada's long-standing regional development agency model

Background

Canada's active regional development efforts at federal level began several decades ago. The Department of Regional Economic Expansion was created in 1969 at the federal level given concerns about inter-regional disparities. To respond to critiques of the initial model, general development agreements were developed to increase co-operation with provinces. In 1982, the entity was reoriented to become the Department of Regional Industrial Expansion and a Ministry of State for Economic and Regional Development was created.

It was in the late 1980s that the model for national efforts grew more decentralised with the creation of the first four regional development agencies (RDAs). Among the rationales for this new approach was greater interaction with sub-national governments and a greater flexibility to adapt to regional needs. That model has not only remained in place for almost four decades, but was expanded in 2009 to cover the entire territory with two additional RDAs. The RDAs were actively used in the delivery of the 2009 Federal Stimulus Package, for example.

Description

Coverage: The network of six RDAs was built over time to now cover the entire country (Table 2.13). Four of the agencies cover multiple provinces or territories, one agency maps to a province, and one province has two agencies. Most of the agencies have additional satellite offices within their coverage area as well as the national capital.

Box 2.23. Canada's long-standing regional development agency model (*continued*)

Table 2.13. Canada's six regional development agencies

Regional development agency	Year founded	Coverage area
Atlantic Canada Opportunities Agency (ACOA)	1987	Multiple provinces
Western Economic Diversification Canada (WED)	1987	Multiple provinces
Federal Economic Development Initiative in Northern Ontario (FedNor)	1987	Partial province
Canadian Economic Development for Quebec Regions (CED)	1991	Province
Federal Economic Development Agency for Southern Ontario (FedDev)	2009	Partial province
Canadian Northern Economic Development (CanNor)	2009	Multiple territories

Mission: Each RDA has a different status and mandate based on its respective enabling legislation. The mandates all generally refer to the importance of economic development and diversification in their coverage areas.

Ministerial linkages: The RDAs' minister represents regional perspectives at various Cabinet meetings. In addition, the RDAs work with line departments, particularly for sectors of economic interest in their coverage area such as agriculture, health, natural resources, as well as public companies ("Crown corporations"). There are six regional federal councils, chaired by the respective RDA Deputy Minister. The councils' mandate is focused on communicating and collaborating on horizontal, federal government-wide priorities.

Oversight and management: The President of each RDA is a Deputy Minister in the federal government, giving high-level oversight to their actions.¹ Furthermore, RDAs as federal agencies are subject to many of the similar reporting requirements of other federal departments. This includes: reports on plans and priorities and departmental performance reports (presented to parliament annually), as well as programme evaluations (see below).²

Funding: In total, the RDAs received 0.4% of the government of Canada's total programme expenses (almost CAD 1 billion) in 2013-14. This represented 0.05% of the country's 2014 gross domestic product.

Strategy development and capacity building: Through different programmes implemented across all RDAs and by individual RDA initiatives, there are efforts to build capacity through support to community development organisations, including in some locations with Aboriginal communities.

Instruments: RDAs currently have the flexibility to adapt the types of instruments and investments according to regional assets and needs. They may directly deliver programmes or finance intermediaries in the region to do so. A couple of federal programmes are administered in all RDAs (i.e. Community Futures Program to support community futures development corporations in rural areas and the Economic Development Initiative for language minority communities). All RDAs address some form of business development, whether through specific innovation funds, such as ACOA's Atlantic Innovation Fund or the WED's Western Innovation Initiative. Some have programmes focusing on manufacturing industries, such as the FedDev Advanced Manufacturing Fund or FedNor's Targeted Manufacturing Initiative. Other programmes may have a broader economic development and community outreach mission, such as the CED's Quebec Economic Development Program or the CanNor's Northern Aboriginal Economic Opportunities programmes.

Performance monitoring: In addition to the annual reporting to parliament, federal programmes are all subject to a performance measurement framework. This includes evaluations every five years and the development of a management action plan to respond to evaluation results. Furthermore, per the Policy on Management, Resources and Results Structure, government and parliament must receive both financial and non-financial performance information.

Notes: 1. With the exception of FedNor, which is part of Industry Canada. 2. Idem.

Source: OECD (2015a), *Multi-dimensional Review of Peru: Volume 1. Initial Assessment*, <http://dx.doi.org/10.1787/9789264243279-en>.

Recommendations

Over the past two decades Peru has demonstrated a commitment to sound macroeconomic policies, which has enabled the growth and diversification of exports. Peru’s sectoral and innovation policies, which are primarily designed and executed at a national level, have focused on further diversifying the economy and increasing the complexity of the country’s export basket. Capabilities have been built within national ministries to design and deliver these policies, and constituencies have been built with key private and public sector stakeholders around these core ideas. Measures have been developed to develop a territorial dimension to these policies, including the Policy Strategy for Territorial Innovation.

In recent times, Peru has also made significant advances in improving its system of strategic planning and policy development. The National System of Strategic Planning establishes a clear and consistent framework for policy and organisational planning for public sector agencies at a national and subnational scale. The co-ordinating and advisory roles of CEPLAN, if appropriately resourced and executed, will raise the quality and improve the alignment of national policies over time. The PEDN establishes a framework for national policy priorities, and concerted regional development plans provide a complementary framework for priority setting at a regional level.

Within the context of these policy improvements, the analysis shows there are three core challenges that will need to be addressed. The first is in terms of the further incorporation of contemporary policy ideas which recognise the increasing importance of regions in sectoral and innovation policies. This includes organising policies at the scale of functional economic areas, recognising the importance of skills and innovation to regional development, and enabling processes of “entrepreneurial self-discovery”. The second challenge is in terms of how these policies are integrated with fiscal frameworks, which can enable a more strategic and multi-year approach to resource allocation. The third challenge is related to how to better co-ordinate policies at a regional level, and build the capability of regional governments to shape and deliver economic development policies. Policy recommendations which respond to these core challenges are outlined below.

Improve alignment between industry and innovation policies at a national and regional level

A key to improving sectoral and innovation policies in Peru will be updating and strengthening alignment with policies at a regional level, which should build upon existing mechanisms such as the concerted regional development plans. Measures to improve the quality and effectiveness of these plans are:

- ensuring that within the next two years that all departments have an endorsed concerted regional development plan
- requesting that the regional governor submit the draft concerted regional development plan for consideration and response by relevant national ministries (co-ordinated by the deconcentrated agency or RDA model)
- mandating a formal review of the implementation of concerted regional development plans every three years, synchronised with other regions, and which is publicly available (co-ordinated by the deconcentrated agency or RDA model)

- mandating publicly available annual reporting on progress in implementing the concerted regional development plan by the regional governor (which also includes a summary of the activities and achievements of the regional co-ordination councils)
- strengthening the economic analysis within these plans, for example incorporating further analysis of the industry and business structure within regions at the scale of functional economic areas (including at a macro-regional scale), including how regional businesses are integrated with GVCs, and the identification of key bottlenecks and growth opportunities at these scales
- creating opportunities for policy makers at a departmental level to learn from each other, and good practices nationally and internationally (e.g. through targeted training and a bi-annual conference on regional planning and investment).

Strengthen co-ordinating and capacity-building mechanisms to implement a regional approach to economic development

Peru could consider the establishment of more effective and strategic institutional support capacity that can facilitate a partnership-based approach to regional development between departments and the national government. Two strategic options to achieve this outcome are: 1) deconcentrated agencies of the Presidency of the Council of Ministers (PCM) and the Ministry of Economy and Finance (MEF) that can work in partnership at a macro-regional level; and 2) regional development agencies (RDA) that are constituted as a partnership between departments and the national government.

- developing the skills and technical capacity of regional governments (departments) in areas such as policy development and evaluation, strategic planning, procurement, and project/programme delivery
- providing support to departments and municipal governments to better integrate strategic plans with fiscal frameworks and investment strategies
- communicating the strategic priorities of the departments to the national government, identifying opportunities for strategic alignment between departments, and ensuring these priorities inform the national budget and planning cycle
- ensuring that national policies and priorities are considered and reflected in departmental planning
- co-ordinating investments and programme delivery at a regional and inter-regional scale
- evaluating and monitoring departmental and municipal level planning to ensure plans are effective and aligned with the national system of strategic planning.

Better integrating national and regional planning with the fiscal framework

The government should consider how to better integrate regional planning with the fiscal framework by:

- Introducing competitive-based funding programmes that are designed to encourage innovation, infrastructure and skills initiatives at a regional level. Ensure that the criteria for prioritising funding includes demonstrating alignment

with concerted regional development plans, and co-contributions from regions, different municipalities, business and other actors.

- Tasking CEPLAN (through the RDA or deconcentrated agency) to work in partnership with departments to identify and prioritise medium term (three- to five-year) capital investment programmes in the regional concerted development plans to deliver on strategic priorities in the territory (derived from the national and subnational plans and programmes). Through the RDA the MEF should also contribute to the development of these investment programmes.
- Including the annual report on progress in implementing the concerted regional development plan in the department’s budget and plans, demonstrating alignment with budget instruments.

Notes

1. The economic complexity indicator measures the amount of different products exported by the country, and the number of countries to which it exports.
2. The product space maps the intensity of links between types of products. The products that are deemed to be close are those closely linked in terms of technological requirements, types of machines used, human capital requirements or types of regulations. Hausmann and Klinger’s argument is that it is much easier to develop a new type of product closely related to an already produced product. Productive diversification is easier when the production structure of an economy is more concentrated in the centre of the map, since jumps are easier to other products. In the case of Peru, the prevalence of mining and agricultural products, which are distant from other products, make it harder to “jump” to the productions of products that would have positive implications on growth, namely sophisticated products (Hausmann, Hwang and Rodrik, 2005).
3. Hausmann et al. (2003) have also provided evidence of the importance of socialising part of the private cost of innovating into new products, in order to achieve a process of development as “self-discovery”. The argument behind the socialisation of some of the costs of innovation lies behind the fact that the cost of innovation may be a too strong deterrent to do so while the benefits are widely spread across society.
4. Legislative Decree No. 1208 and No. 1221.
5. RIS3 stands for Research and Innovation Strategies for Smart Specialisations and are “integrated, place-based economic transformation agendas” developed by the European Union as a strategy for 2020 with the goal to ensure knowledge- and technological-based development at a national and regional level.

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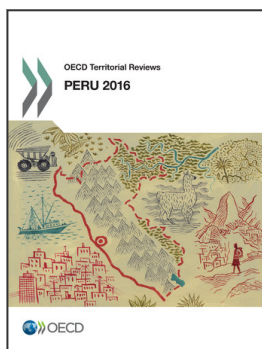
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