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Local content measurement and reporting

Good practice guidance for the oil, gas and alternative energy industry

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Advancing environmental and social performance across the energy transition

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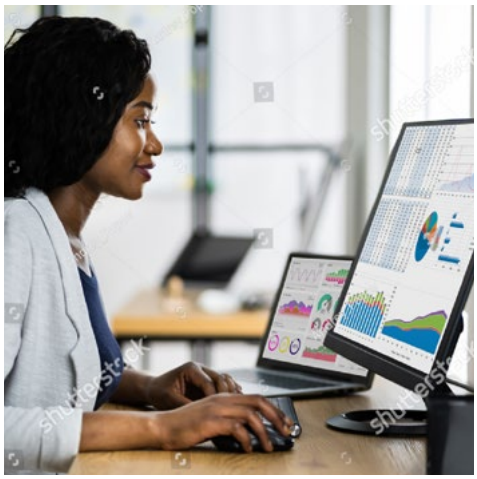

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The global oil and gas association for advancing environmental and social performance across the energy transition

14th Floor, City Tower, 40 Basinghall Street, London EC2V 5DE, United Kingdom
Telephone: +44 (0)20 7633 2388 E-mail: info@ipieca.org Website: www.ipieca.org

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Executive summary

Local content is increasingly recognized, across numerous industries, as a vehicle for stimulating socioeconomic development. When managed properly, local content can support broader structural economic objectives such as driving diversification, increasing competitiveness, improving Labor productivity, and catalyzing foreign direct investment. Likewise, various stakeholder groups are becoming more interested in the broader economic impact and spillover effects that local content creates.

Local content measurement and reporting is an evolving space as the industry is continuously learning and improving its ability to optimize its socioeconomic impacts. Looking ahead, it is likely that demand for more rigorous and transparent local content reporting will become more integrated into global sustainability and environmental, social and governance (ESG) reporting frameworks. The data collected will be increasingly important to policymakers charged with finding more effective ways to stimulate local economic development. Companies will continue to rely on this data to improve their own value proposition to society and inform how they compete.

As the demand for robust measurement and reporting intensifies, the ability to meet this demand must keep pace. Thus, it is important to establish pragmatic local content measurement and reporting frameworks that are conducive to driving sustainable impact, gathering the appropriate data in a timely and cost-effective manner, and communicating results and progress against performance with a learning and development mindset.

Digital technologies are making some of these challenges easier, but they must be complemented with the appropriate technical support, strategy, and advocacy across public and private sectors to foster the collaboration needed to drive results.

This practice is also taking a new level of prominence in the energy transition. Local content development, measurement and reporting are material factors in how new renewable energy projects are being structured and delivered. It is also an important factor in how investments in other low-carbon solutions, from hydrogen to carbon capture and sequestration, are awarded and implemented.

Ipieca will continue to develop guidance in this area, sharing it across the industry and with stakeholders in other sectors. Through sharing this guidance and engaging around the issues it covers, Ipieca will continue to drive best practice in local content development.

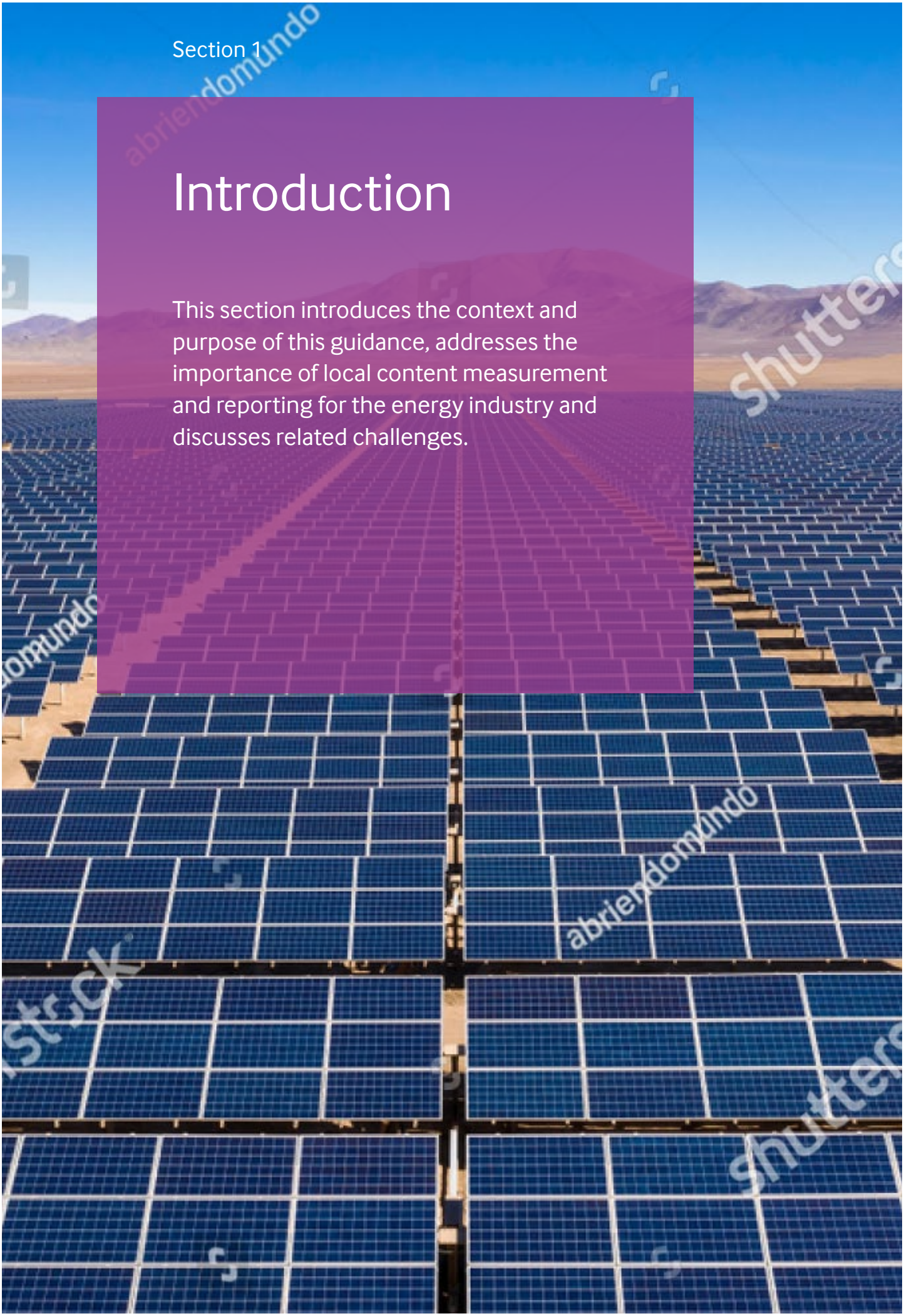
The guidance is structured as follows:

- **Section 1** introduces the context and purpose of this guidance , addresses the importance of local content measurement and reporting for the energy industry, and discusses the challenges to local content measurement and reporting today
- **Sections 2** provides a roadmap, a step-by-step process, to structuring a local content measurement and reporting framework
- **Sections 3** explains the importance of understanding or identifying context and parameters
- **Section 4** guides the practitioner in selecting the metrics
- **Section 5** walks the practitioner through collecting and analysing the data
- **Section 6** focuses on reporting and communicating results
- **Section 7** wraps up the guidance by briefly discussing the evolving nature of this topic and introduces the additional resources made available in the Annexes

Section 1

Introduction

This section introduces the context and purpose of this guidance, addresses the importance of local content measurement and reporting for the energy industry and discusses related challenges.



Context and purpose

Local content good practice is based on the idea of creating 'shared value', that is achieving both project competitiveness and generating and growing economic opportunities related to workforce, local supply chain, and surrounding communities[1]. A competitive supply market for local workforce and suppliers, promotes sustainable local economic capacity and provides a competitive advantage to both operators/resource developers (e.g., through cost effectiveness, reduced supply disruption risk, etc.) and countries/communities.

Local content as an effective vehicle through which the energy industry can have a direct, positive impact on socioeconomic development where it operates is reinforced in Ipieca's Sustainable Development Goals (SDG) Atlas[2] and Roadmap[3], etc. Local content efforts significantly contribute to among others, SDG 8 on decent work and economic growth, by creating jobs and business opportunities, developing workforce skills and supplier capabilities leading to economic growth.

Developing tailored and effective local content strategies and plans to create shared value includes setting plans with clear goals and objectives. Measuring and reporting are critical to communicate the progress and accomplishments of local content efforts and to have the ability to adjust course as needed. Whether fashioning laws, regulations, corporate policies, and/or implementing supplier and skills upgrading programmes, local content practitioners operate in diverse political and socioeconomic contexts, from countries with a long history in oil and gas to new market entrants, as well as countries investing in renewable energy and lower-carbon projects. Thus, a one size fits all approach for local content measurement and reporting is complex and challenging given multiple and diverse country drivers and stakeholders.

The objective of this guidance is to provide a structured framework to guide practitioners towards the implementation of an effective and efficient local content measurement and reporting process. It offers a roadmap to select, collect, and analyze metrics.

This guidance has been developed keeping key stakeholders in mind - governments, regulators, resource developers, major contractors, and suppliers - as all of them have measurement and reporting responsibilities on their local content activities.

[1] Ipieca, 2016: *Local content: A guidance document for the oil and gas industry, 2nd Edition*
[2] Ipieca, 2017: *Mapping the oil and gas industry to the Sustainable Development Goals: An Atlas*
[3] Ipieca, 2021: *Accelerating action: An SDG Roadmap for the oil and gas sector*

The importance of measuring and reporting on local content

Not only are the technologies for both hydrocarbon development and renewables advancing at a rapid pace, but so are the methods and practices by which the industry is advancing its long-term environmental, social, and economic development value proposition. Specifically, implementing local content is now more than ever key to helping achieve the long-term socioeconomic benefits brought by large-scale investments and operations in the energy sector. Local content measurement and reporting is one core element within the larger practice of local content. Its importance has steadily grown over the last decades due to a few factors.

The increasing reliance of governments on the private sector to leverage investments in the energy industry to stimulate wider economic growth. Whether at the national or local level, officials overseeing or progressing existing and new projects must deliver to their constituents' opportunities for enhanced benefits through the creation of sustainable jobs and business opportunities for the local private sector. Such requirements are now commonplace not only for existing projects and operations but as key criteria for awarding new leases for development in both the hydrocarbon and renewables space. The result has been increased reliance on local content measurement and reporting to be able to verify and show continued progress with stakeholders.

Increased consumer and investor demand for transparency on ESG issues. Several global reporting frameworks include high-level local content measurement and reporting guidance (see Annex 1). There is growing convergence around the core principles of ESG reporting. As a result, it is expected that local content measurement and reporting practices will continue to evolve, partly to address increasing demand for a more granular view of economic impact and opportunities. A more thoughtful local content measurement and reporting approach ultimately provide the opportunity to tell a comprehensive story to all key stakeholders on the economic and social impact and the positive value contribution a project or operation is having locally.

The need for companies to rely on data to ensure that activities are meeting obligations, objectives, and expectations primarily in the areas of workforce and supplier development. Reliable data on relevant metrics enables better analyses to identify risks and opportunities. More robust analyses can lead to new development strategies leveraging local resources to offset global risks, such as pandemics, and enhance the competitiveness of the local workforce and business environment. Companies can also leverage local content measurement for more reliable and useful data on supplier performance.

These factors highlight the importance and the need to have a structured and standardized approach when developing a local content measurement and reporting framework.

Challenges of local content measurement and reporting

To effectively implement local content measurement and reporting, it is necessary to understand its challenges and constraints.

- Each country has its own drivers and approach to local content. Thus, there is no universal definition of local content nor a formalized set of metrics to measure the impact of local content. This often leads to confusing and sometimes conflicting stakeholder expectations. This also makes it difficult to compare results across different geographies and projects/operations, i.e., comparing 'apples' with 'oranges.'
- There does not exist standardized methodology for structuring a local content measurement and reporting framework. Many companies have developed their own approach, while governments typically have their own context-specific reporting and measurement regimes. These are often not aligned and may require reconciliation to have a reporting mechanism focused on measures that drive local content development while minimizing administrative burden.
- When contract terms do not include local content measurement and reporting requirements, the ability to measure and collect data may not be possible or hindered leading to a lack of data, and inaccurate or delayed data collection.
- Time, money, and resources necessary to collect and validate data can be high for operators/resource developers and suppliers to satisfy local content measurement and reporting requirements. For smaller local enterprises, this can be an even more difficult task as they may not have available human resources or systems to provide the data requested to operators/resource developers, and/or contractors/ tier 1 suppliers.
- Capturing data beyond tier 2 suppliers is very challenging and poses a significant administrative burden; resulting in limited visibility across the local supply chain. This may impact reporting and communicating with local suppliers who are often vocal stakeholders interested in business opportunities.
- The quality assurance process to verify data and information, even when it is submitted, can be costly for stakeholders including governments and resource developers.
- The request for extensive data without the necessary resources or requiring coordination of multiple parties impacts timely reviews. It slows down the effective utilization of measurement insights for continuous improvement as well as project cost and schedule milestones.
- It is commonly assumed that the higher levels of local content the better, however they are not always beneficial as they can have different impacts on stakeholders' interests. Unintended consequences of higher levels of local content include loss of commercial value for investors and resource developers, declining investment and technology transfer by foreign contractors, and dependence of a local economy on natural resources for jobs sand business opportunities (resource curse), among others.[4]

Implementing a framework that balances what is feasible to collect, analyze and report in a timely manner for valuable insights requires a thorough preliminary review and stakeholder consultations.

[4] Warner, Michael (2011) *Local content in procurement: creating local jobs and domestic industries in supply chains.*

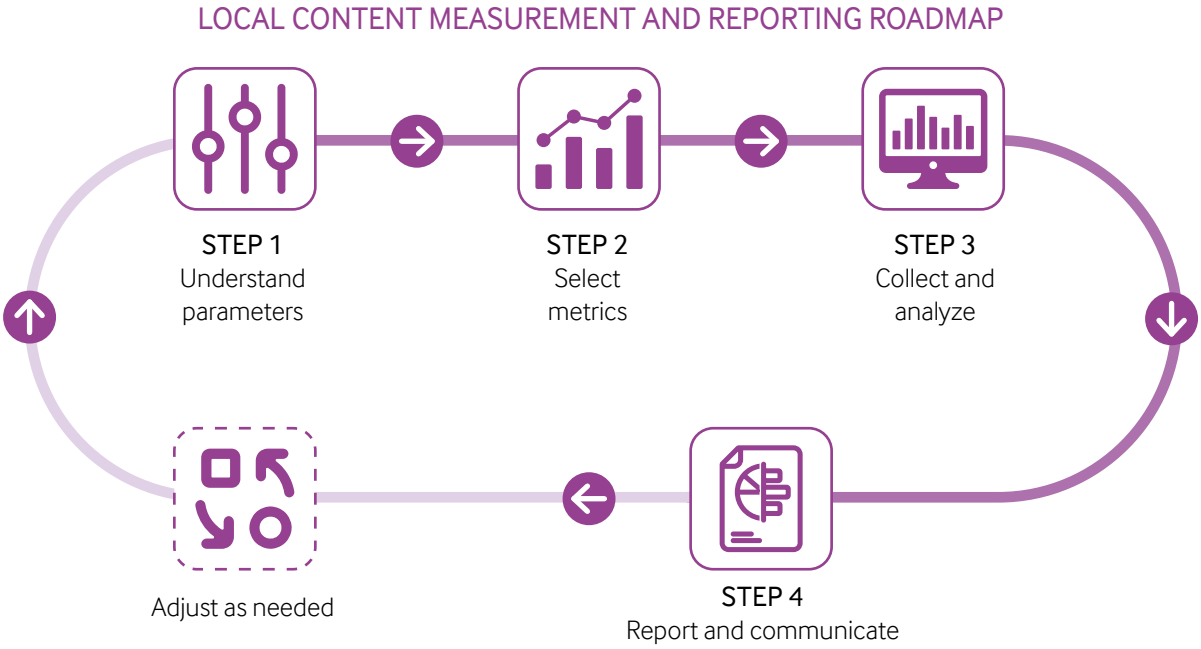
Roadmap

This section provides a step-by step roadmap to structuring a local content measurement and reporting framework.

Roadmap for local content measurement and reporting

The process, or roadmap, for conducting efficient and effective local content measurement and reporting can be structured using the following steps.

Figure 1: Roadmap for local content measurement and reporting



Step 1: Understand measurement and reporting parameters. It is important to understand the context and parameters when developing the measurement and reporting framework. If local content strategy and plans have been developed, the key parameters are found there. If not, additional detail is provided in Section 3 to identify them. Particular attention should be given to stakeholders' expectations and key core drivers; definition of local content and what is local within the context of the activity; who is responsible for executing local content measurement and reporting within an organization; and how reporting activities fit with other reporting and communication efforts.

Step 2: Select metrics. Practitioners select the appropriate mixture of local content metrics to be collected and analyzed based on context and considering the stage of the project life cycle, obligations and requirements, and stakeholder expectations. Metrics are generally related to local workforce, supplier utilization, and capacity building of both since these areas are key to driving local economic development.

Step 3: Collect and analyze. The process of collecting and analyzing data requires defining roles and responsibilities, establishing collection frequency and a flexible mechanism to ensure quality and timeliness in changing business environments. Analytics is a key component of local content for continuous improvement. Potential use of digital tools is also addressed in this section.

Step 4: Report and communicate. Reporting and communicating on local content need to address both internal and external stakeholders. Different forms of engagement for sharing results must be considered depending on the target audience. Stakeholders' feedback further helps review progress and receive input for gap closure and supporting initiatives.

Adjust as needed. As shown in Figure 1, it is important to establish a feedback mechanism to capture and discuss lessons learned. It can consist of a list of recommendations and suggestions which can be prioritized to make any necessary adjustments during upcoming reporting cycles.

Section 3

Step 1 – Understand context and parameters

This chapter presents the first step of the proposed roadmap: understanding or identifying context and parameters for local content reporting.

Step 1 – Understand context and parameters

The first step in structuring a local content measurement and reporting framework is to understand and/or map, if not already accomplished through local content strategy and plan development, the context, and foundational parameters.

This involves (1) understanding or identifying stakeholder interests; (2) understanding the core drivers influencing local content activities; (3) being familiar or setting a definition for local content; (4) establishing or utilizing the organizational governance to manage the measurement and reporting activities; and (5) aligning with other ongoing reporting activities.

STAKEHOLDERS

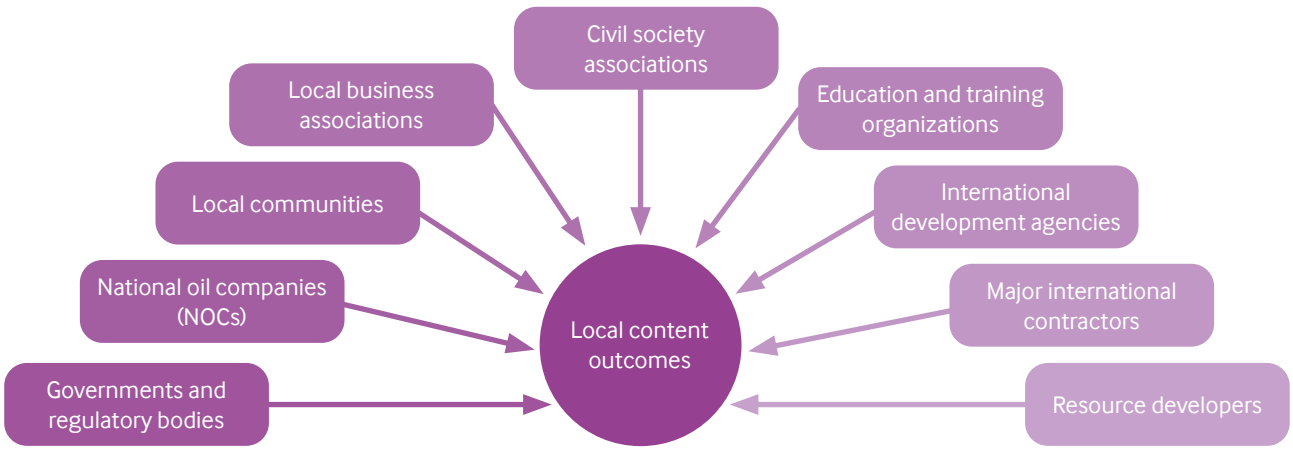
The first element to consider when structuring the framework is understanding or mapping the project or activity key stakeholders, their expectations, and responsibilities.[5] Figure 2 illustrates the various stakeholders and actors engaging in the local content space.

While stakeholders' interests vary based on country and context. The potential expectations and responsibilities of some key stakeholders are summarized below.

- **Governments, regulators and national oil companies (NOCs):** expect the economic development of their country; they are responsible not only to ensure compliance with local content requirements but also to provide a stable environment, infrastructure, and incentives.
- **Local communities (including local businesses):** expect jobs and business opportunities; they are responsible for providing resources, goods and services that meet high operational standards.
- **International development agencies, investors, and lenders:** expect to advance economic and social priorities; they are responsible for funding or financing while maintaining transparency and accountability on local economic development efforts.
- **Resource developers, major international contractors, and suppliers:** expect to meet commercial goals (e.g., profitability, competitiveness, access to resources, reputation); they are responsible for utilizing and training the local workforce and goods/service providers, complying with regulatory requirements and communicating performance and results.
- **Civil society organizations (and/or other non-profit entities):** expect to support economic and social development; they are responsible for advocacy and monitoring local content efforts. They may also partner or collaborate with other stakeholders to achieve similar objectives.

Practitioners should familiarize themselves with the interests of the stakeholders relevant to the project or activity in question as they prepare measurement, reporting and communication plans.

Figure 2: Stakeholders engaging in local content space



[5] Ipieca, 2016, *Local content guidance (2nd edition)*

DRIVERS

The core drivers are the foundation of any local content strategy and thus the associated metrics and communication mechanisms. Table 1 highlights key core drivers related to measurement and reporting.

Table 1: Local content core drivers

DRIVER	DESCRIPTION
Purpose and vision	Government entities have a purpose that defines the vision within which a project or operation must exist. Likewise, companies have their own corporate vision for how local content shapes their value proposition. All measurement and reporting frameworks must be structured with both as the development backdrop.
Regulatory requirements	Often stakeholders are required to report against existing policies, laws, regulations, or contractual obligations. Such requirements must be understood to ensure satisfactory compliance and so that the appropriate data can be collected.
Business principles, commitments, and policies	Many companies (resource developers, major contractors, suppliers) have internal policies or principles that require local economic impact reporting, and they must be accounted for in the design of the framework. In addition, a robust framework contributes to companies' reputation through clear and transparent reporting framework contributes to companies' reputation (e.g., ESG performance benchmarks, corporate sustainability reporting, etc.).
Collaborative voluntary reporting	Some stakeholders commit to report various opportunities and impacts to a common framework, such as the Sustainable Development Goal , the Ipieca-API-IOGP *Sustainability reporting guidance*, or the Global Reporting Initiative (GRI), which may include local content. These must also be mapped and integrated into the design of the framework to streamline information collection and so the appropriate data is collected.

LOCAL CONTENT DEFINITION

An effective measurement and reporting framework is based on a clear local content definition. The definition is often provided in law, regulation, or policy. In the absence of an already provided definition, the practitioner should utilize internal guidance. When no internal guidance exists, consider creating a customized definition focusing on principle, objective, and scope, as shown below.

Figure 3: Developing a local content definition

1. DEFINITION PRINCIPLE	
Articulates the substantive factors in the local content objectives. Emphasizes local participation (employment and procurement) and/or development objectives (workforce skills and supplier capabilities).	For instance: '...participation and development of local resources...'
2. DEFINITION OBJECTIVE	
Presents a set of local content objectives or intended outcome. Ranges from high level objectives at a strategic level to more specific at a tactical level.	For instance: '...in a manner that promotes and generates local economic development...'
3. DEFINITION SCOPE	
Is broad enough to include multiple aspects of local content while contained enough to remain useful and manageable.	For instance: '...local Labor, goods, services, and technology, in the value chain of energy projects and operations...in a country or region...'
EXAMPLE OF CUSTOMIZED DEFINITION FOR LOCAL CONTENT	
'Local content is the participation and development of local resources in the energy sector — including capital, Labor, goods, services, assets, and technology — in a manner that promotes local economic development and generates shared value for the country.'	

Defining local workforce and local supplier

As part of the definition development process, it is important to establish a definition of local workforce and local supplier. In many cases, they can be found in the legislation, or at the petroleum agreement level. In their absence, practitioners need to establish these definitions.

Local workforce often includes all nationals, which can be defined as anyone born or legally residing in the country. In some cases, based on stakeholder expectations and reporting needs, practitioners may be required to further define local workforce as explained in Section 4 (Geographic scope).

Local suppliers may be defined using different approaches[6] such as involvement of local citizens, job creation through value addition, and/or emphasis on the most appropriate geographical focus. Common definitions of local supplier include:

- Address given in the supplier registration information, a purchase order or invoice
- Percentage of ownership by nationals
- Incorporation or tax registration of the supplier in the country
- Country of origin (where supplier produces or provides goods/services)

While percentage ownership by nationals is often used to define suppliers as local, this may not be the best approach. Verifying percentage of ownership is time-consuming, especially at the early stages of a project or activity. Another common approach to define local supplier is incorporation of supplier in country. It cannot be assumed that a company incorporated in-country is majority owned by nationals, nor that one incorporated overseas is not majority owned by nationals. The verification of ownership percentage is still resource and time consuming.[7]

Practitioners benefit from creating a local supplier definition that is fit for purpose based on the principle, objective, and scope of the local content definition. For example, a local company can be defined based on the number or percentage of national employees or managers during a specific period. A company may be considered local based on its vicinity to the project, activity, or area of impact, e.g., within a radius, postal code(s), or region. Finally, a company may be defined as local if it manufactures or delivers services within a country or a designated geographical area.

[6] Kaiser EDP (Environmental Development Partners), An approach to defining, measuring and monitoring local procurement by the mining industry World Bank Local Content Conference, Vienna, 30 September 2013 1 (kaiseredp.com)

[7] Warner, Michael (2011) Local Content in Procurement: creating local jobs and domestic industries in supply chains.

Table 2: Examples of local content definitions

COUNTRY A	COUNTRY B
Local content is called in-country value (ICV) and it is defined as the total spend retained in Country A that benefits business development, contributes to human capability development, and stimulates productivity in the country's economy.	**Local content** is defined as the total value added to or created in Country B's economy by a systematic development of capacity and capabilities through the deliberate utilization of the country's human, material resources and services in the oil and gas industry.
Principle: In this definition, the principle is value retention (the term used for local content, ICV, already provides this signal).	**Principle:** In this definition, the principle is value addition to and value creation in the country's economy.
Objective: The objective of spend retention is business development (development of the country's private sector), human capability development (the development of the country's skills) and to stimulate productivity (increasing efficiency and competitiveness of the economy).	**Objective:** The objective is the systematic development of capacity and capabilities, and the mechanism is the deliberate utilization of the country's human, material resources and services.
Scope: The geographic scope of the definition is Country A, and the category scope is businesses and people.	**Scope:** The geographic scope is Country B, the sector scope is the oil and gas industry, and the category scope is Country B's human, material resources and services.
Context: *Definition of Local Supplier* - A nationally registered supplier is a company, subsidiary, or branch incorporated under Country A law in Country A and/ or registered to operate in Country A under a renewable license; and whose offices or facilities associated with producing manufactured or assembled goods or providing services to the Company are in Country A.	**Context:** *Definition of Local Supplier* - A company formed and registered in Country B with not less than 51% equity shares by nationals. A foreign entity is classified as local if the company is registered in Country B and has 51% shareholding or greater held by nationals.

ORGANIZATIONAL GOVERNANCE FOR LOCAL CONTENT REPORTING

Another important parameter to define at the outset is where the responsibility for implementation sits within the organization or business. The implementation of the framework will be shared across many functions, ranging from contracts and procurement (or equivalent) to human resources and socioeconomics/sustainability departments (or equivalent).

Experience to date strongly supports the designation of one 'champion' function to drive a centralized approach to implementation of the framework across the organization.

ALIGNMENT WITH OTHER REPORTING ACTIVITIES

Local content practitioners should also consider how the local content measurement and reporting framework (and associated reports and outputs) align with other ongoing reports and communications across the organization. Given the increasing number of reports and communications organizations are required to produce—from annual sustainability reports to financial disclosures—it is important to understand the relationship of the local content framework to derive its greatest value.

This is important to:

- **Avoid redundancy:** Redundancy wastes money, time, and effort, while also heightening the risk of using dissimilar methodologies and processes.
- **Integrate effectively:** An effective local content measurement and reporting framework enhances the reporting and communication efforts of other parts of the organization. By integrating local content metrics into internal and external communication efforts, the organization derives optimal value from its investment in local content measurement.
- **Select relevant metrics:** A clear line of sight into how the organization is using or wants to use local content in its collective narrative allows one to identify and select the metrics most relevant for various intended audiences.

To select the organizational home for the framework, practitioners should consider the following prompts:

- What is the stage of the life cycle and degree of necessary reporting?
- Where in the organization should the framework be managed? Where is the framework best positioned organizationally to meet all stakeholder needs to fulfil its purpose most efficiently? Should management be part of an existing unit, department, or function, or as new and standalone group?
- How visible will this activity be (internally and externally)?
- What organizational position would best ensure a balance between 'global' and 'local' local content measurement and reporting? What teams need to be working on this activity at the global level—consolidating results and messaging at a corporate level versus those working on similar objectives in discrete local geographies?
- Local content is a cross-disciplinary practice. Where are the people with the skillset who can work across the various parts of the organization to streamline implementation of the framework?
- What resources are required to ensure success, especially people? Does the organization have the appropriate talent today? If not, can it build capacity and train high-potential staff to step into the role?

To enable alignment between local content and other measurement and reporting activities, practitioners should consider:

1. Mapping out the organization's existing reporting and communication efforts — including the reports' frequency, target audience, schedules, style, and any metrics related to local content.
2. Engaging the teams working on corporate reporting, at global and local levels, to clarify what, if anything, is already being done on local content and what could be enhanced.
3. Setting roles and responsibilities to explains how the local content measurement and reporting framework will integrate into other reports and communications.

Step 2 – Select metrics

Section 4 guides the practitioner in conducting Step 2 of the roadmap: selecting the metrics.

Step 2 – Select metrics

When selecting local content metrics, the ultimate objective is to arrive at an optimal set of metrics that is well balanced in measuring progress of local content efforts without becoming administratively onerous. Practitioners must include metrics that meet regulatory requirements (when they exist) but also consider metrics that are best suited for a particular context and application, considering their management, governance, and analysis.

Metrics often drive stakeholders' behavior, especially amongst regulators and resource developers. It is important to have an effective set of metrics to help drive desired behavior, to monitor and evaluate performance, and to facilitate and promote compliance.[8]

PROCESS FOR DESIGNING AND SELECTING METRICS

With the framework parameters defined and in place, the process of selecting the relevant set of metrics should flow through the following steps.

1. Inventory all metrics required by law/regulation and internal reporting obligations
2. Select metrics relevant to project life cycle phase
3. Define the geographic scope for the metrics
4. Select a balanced mix of metric types (e.g., quantitative/qualitative, input/output)
5. Check that selected metrics address key stakeholders' drivers (i.e., jobs, training, supplier utilization, targeted supplier categories, local spend by category)

Project life cycle

When selecting metrics, practitioners must take into consideration the stage of the project life cycle. The number and depth of metrics depend on the development and investment for each phase and the feasibility of local content performance. Metrics associated with workforce participation, supplier utilization, and capacity building can be consistently tracked throughout the full life cycle. However, practitioners should disaggregate metrics for each phase and not seek to apply the same depth of metrics across all phases of the project.

Since workforce participation metrics are critical, it is good practice to consistently track not only total number of full-time equivalent (FTE) nationals, but also provide the breakdown by skill level (e.g., managerial, professional, supervisory, technical, skilled, semi-skilled, unskilled) and gender throughout the life cycle.

In some contexts, stakeholders may be interested in integrating diversity and inclusion considerations in local content reporting. This typically requires disaggregating local workforce and supplier metrics by under-represented or specific groups, such as indigenous peoples (e.g., First Nations in Canada, Aboriginal in Australia), women-owned businesses (WOB), or small and medium enterprises (SMEs). By understanding context and stakeholder expectations, practitioners can incorporate these requirements in the local content measurement and reporting framework as needed.

Table 3: Tracking national FTEs by skill level and gender

LOCAL WORKFORCE PARTICIPATION (FTEs)				
SKILL LEVEL	TOTAL	LOCAL	%	FEMALE
Managerial				
Supervisory				
Professional				
Technician				
Skilled				
Semi-skilled				
Unskilled				
Total				

[8] Toulekima, Mireille (2015). *Local content key enabler for oil and gas projects in emerging markets.*

Geographic scope

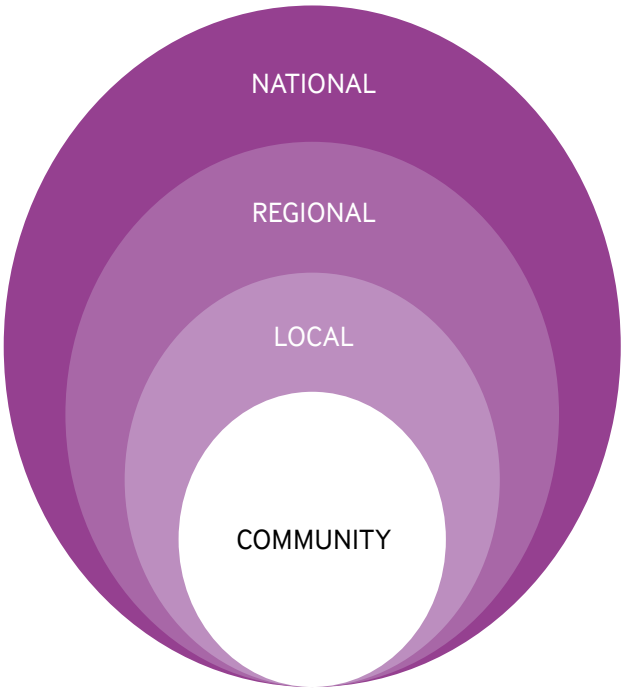
Selecting the appropriate metrics requires a clear understanding of what is 'local' in any given context. Local content metrics can be applied by reference to distinct geographic levels, ranging from national to community level or 'area of influence'. Practitioners need to understand the stakeholders and their expectations to select metrics at the appropriate geographic scope.

Figure 4 shows the different levels of geographic scope. The national level refers to a specific country; the regional level to a given province or state of that country (or a specific area that may cover multiple provinces, states, or municipalities); the local level refers to the closest area or business district (e.g., industrial parks) to the operations or business district, e.g., where the producing facility (onshore) or the shore base support (offshore) are located. In some cases, other levels are defined depending on the area impacted by the operations (e.g., pipeline). Usually, the term 'local content' incorporates all the levels in just one term. Sometimes, the term 'national content' is used to differentiate it from foreign content.

A clear understanding of what constitutes a 'national, regional, or local' citizen or business is required for the calculation of the number of locals employed or suppliers utilized. With respect to community-level metrics, definitions are often based on proximity to a reference asset or piece of infrastructure. For example, a community-based individual is a national citizen who permanently resides within a 200-kilometer radius of the facility or operating site. This approach could also apply to businesses.

Geographic parameters can also be established by listing the districts, provinces, cities, towns, or other administrative divisions encompassed by the term 'local'. Regulations can dictate the geographic scope of metrics required to comply with contractual obligations. However, based on stakeholder analysis, practitioners may also need to develop metrics with various geographic scopes. Resource developers may develop their own area of impact based on the context of the project or activity.

Figure 4: Geographic Scope of local content metrics



SELECTING A BALANCED MIX OF METRICS

Striking a balance between types of metrics is critical for successfully capturing a complete story on economic impact as a result of local content.

Metric approach: Qualitative vs quantitative

Qualitative metrics often describe an approach to developing local content or a related process. They are non-numerical and are observed first-hand. Such metrics are important in explaining and describing what is being done, how it is being done, and the rationale for action, as well as providing non-numerical insights into local content activity. Given their descriptive nature, however, non-numerical data are not readily aggregated. For example, the succession plan for nationals across skill levels is a qualitative metric as it describes the process for workforce development.

Quantitative metrics are numeric data that measure discrete quantities at a given point in time. These data are readily aggregated, compared, and contrasted. For example, spend with local suppliers can be tracked and compared over time periods.

Metric signal: Input vs output

Input metrics measure the resources used to produce a desired outcome or output. For example, 'No. of hours of training delivered' is an input metric as it indicates the level of resource (in this case, time) applied to training.

Output metrics measure the outcome or result produced by the application of resources. For example, 'No. of skilled workers certified post-training' is an output metric as it indicates the result produced by the investment in training.

An effective set of metrics should include both input and output metrics, to help monitor not only the effort or resources spent on an activity but track outcomes and progress of desired results. Input metrics are often simpler to measure than outcome ones, but practitioners should consider selecting fit for purpose output metrics to measure performance improvement over time.

Level of complexity

Practitioners should take caution to rely on overly complex metrics as they pose a challenge to collect or calculate. When a metric requires many assumptions to produce, or when raw data is not readily available from systems or easily calculated, the accuracy or credibility of the metric is at stake. Practitioners should exercise caution when choosing complex metrics keeping in mind that their definitions and assumptions must be clear, and that they are potentially resource intensive to obtain. For example, quantifying the value added of using a local supplier vs a foreign one is complex because the quantification of criteria elements other than cost, quality, and delivery such as innovation, inclusion and diversity, social value is subjective, or lack a standardized definition or approach of measurement.

Annex 2 provides suggested commonly used metrics for local content in key categories including their applicability based on project/investment life cycle phase. While not an exhaustive list, is a valuable starting-point from which a robust set of metrics can be selected following the steps and guidelines provided in this guidance.

CHALLENGES RELATED TO SELECTING METRICS

The process of designing and selecting metrics for local content measurement and reporting can be challenging and complex. Following are some potential difficulties associated with this process, along with suggestions on how to detect, avoid, and mitigate them.

- **Causality vs. correlation:** It is important to distinguish between events or activities that are causally linked and those that are merely correlated. This process of valid attribution is challenging given the dynamic and multifaceted nature of local content. Practitioners should stay attentive to the risk of deriving unfounded conclusions based on a perceived causal link between a metric and a behavior or an outcome. To avoid this pitfall, practitioners should assess the environment in which the activity takes place and identify other factors that could potentially be influencing the observed behavior or outcome. Metrics themselves can be a useful tool for informing such analysis. For example, if there is no progress on an activity yet, it is likely that some other factor or activity is driving this performance.
- **Double counting:** Certain metrics are highly susceptible to double counting. The main reason for double counting is not having clearly defined terms in the definition of a metric. Key areas to look out for are Labor classifications (by skill level and by geographic location) and supplier classifications (e.g., national, community-based, locally registered). For example, a community-based worker is also a national worker so metrics around these two classifications should be separated. Similarly, a community-based supplier is usually also a national supplier. Metrics involving investments are also frequently double counted. For example, 'investment in supplier capacity building' and 'investment in dual-purpose infrastructure' risk being double counted if the supplier capacity building includes an investment in infrastructure (e.g., a training center, a welding lab). Finally, depending on reporting requirements, a resource developer may report indirect spending with local suppliers while its major contractors report the same spending as direct.
- **Inconsistency of definition and calculation techniques:** Metrics should be consistent across the entire project. It is impossible to compare the local content performance of different entities if they report using different metrics or if they use the same metrics but calculate them differently. Equally, it is important to ensure the consistency of metrics over time. For example, if at one point in time a metric considers local content spend to be the expected value of contracts with local suppliers but then switches to actual spend, the result would be quite different. If existing metrics change or new ones are introduced, clear communication must be provided including content updates and timeline for implementation.
- **Too many metrics:** The number of metrics to be used is also an important consideration. Too few metrics can provide an incomplete picture of local content performance. Too many can become challenging to manage. There is no magic number but, the number of metrics should be in the range of two to three per local content category (workforce, procurement, workforce training, supplier development, and so forth). This estimate is highly dependent on contextual factors such as phase of project or activity life cycle, so should be taken as a high-level reference only.
- **Applicability of rules of origin:** Be careful when using rule of origin in local content. Rules of origin refers to criteria needed to determine the national source of a product. It is often used in manufacturing industries such as automotive but does not translate well to the energy sector.

[9] World Trade Organization (WTO) Rules of Origin WTO | Trade topics - Rules of origin gateway

Section 5

Step 3 – Collect and analyze data

This section explains Step 3 of the roadmap: walking practitioners through collecting and analyzing the data.

Step 3 – Collect and analyze data

Once metrics are selected, the next step is to begin data collection. To do so effectively, there must be a process for managing the data (i.e., data governance) and for efficiently gathering all the information needed for each metric.

As noted in Section 3, an organizational design must be developed based on the life cycle needs. Collecting and consolidating data internally from across functions (human resource, finance, procurement) and externally (e.g., major contractors/tier 1 suppliers, subcontractors/tier 2 suppliers) should be done as efficiently as possible to meet appropriate reporting timelines. A significant amount of effort is spent on collecting and analyzing data. This translates into a financial cost (time, money, and resources) for resource developers, suppliers, and regulators. Effort in collecting accurate data is important as it provides tangible insights to progress on local content efforts for all parties.

When implementing a data collection process, practitioners should consider the following.

1. Understand frequency and timing of reporting requirements, internal and external, e.g., quarterly, half-yearly, annually.
2. Map out the requisite timelines for collecting, processing, and synthesising the data to meet reporting obligations in a timely manner.
3. Create a data collection work plan and share it with everyone involved in the process, internally and externally, including major contractors and local suppliers. Practitioners should be mindful of setting realistic data submission deadlines, e.g., lag between invoice payment and spend captured in systems.
4. Include local content-related regulatory reporting requirements in contractual provisions, e.g., petroleum agreements, supplier contracts for goods and services, etc.
5. Develop roles and responsibilities that outline who is responsible for what core tasks in the reporting framework. Identify the individuals and departments (internally and externally) responsible for collecting the required data. Roles and responsibilities could be streamlined and centralised to a dedicated local content group or decentralised across various functions with a local content 'lead' working across the organization(s) to aggregate data from various sources.
6. Establish a plan for systematic training and capacity building on local content reporting—and to disseminate best practices and create and maintain alignment on measurement and reporting. Consider creating a working group or network of local content 'champions'.
7. Ensure the process maintains necessary data privacy and security of local content data. This typically involves working closely with the IT department (as well as legal departments in the beginning) to align local content data collection processes, systems, and procedures with existing data management protocols.
8. Incorporate lessons learned on data collection processes for continuous improvement and efficiencies.

COLLECTION

It is key to right-size the collection process and system to be fit for purpose based on the life cycle stage. Many organizations rely on manual processes for collecting and analyzing local content data. This approach typically takes the form of circulating templates to data providers, requesting them to fill in various data fields and submit them to the data requester, who then consolidates to create a single document/report. There are also software platforms that facilitate the way data is collected and processed.

While existing systems should be leveraged, retrofitting existing enterprise resource planning (ERP) systems for local content collection purposes has not proven effective or efficient. When necessary, tailored local content reporting software platforms or platforms created to collect information on the social and environmental impacts of a project may be used (see Annex 3 for recommended elements to consider when evaluating use of digital LC reporting systems).

As local content opportunities vary with the project life cycle, the detail and breadth of metric coverage inevitably increases. This can make reporting more time-consuming and burdensome. Practitioners can consider the use of digital technologies that are cost effective and flexible to changing business environment, to streamline the process, and ensure data quality and timeliness.

When used, local content measurement and reporting platforms must be supported with capacity building and training for users, especially the supply chain partners asked to engage with the system. Investing in upfront, routine training of local suppliers to improve data collection and reporting reduces time delays and data inconsistencies associated with suppliers, builds trust in and reliance on the system. It also visibly demonstrates value for suppliers as it can help streamline efforts in local content reporting.

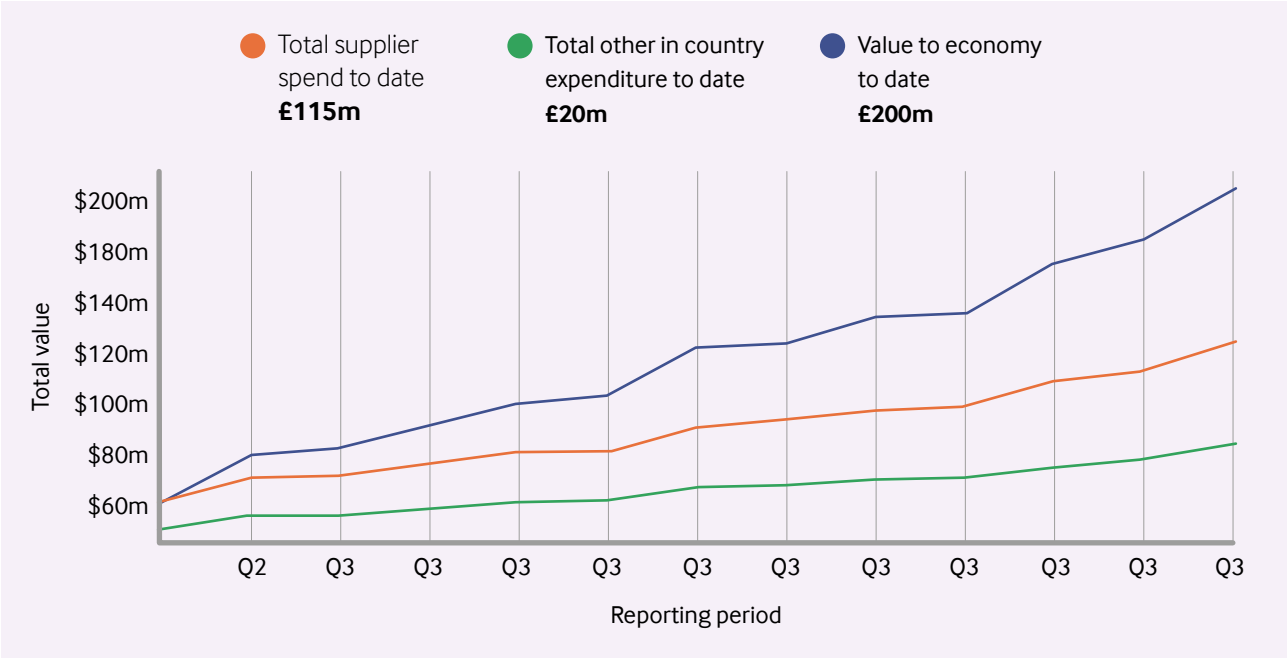
ANALYSIS

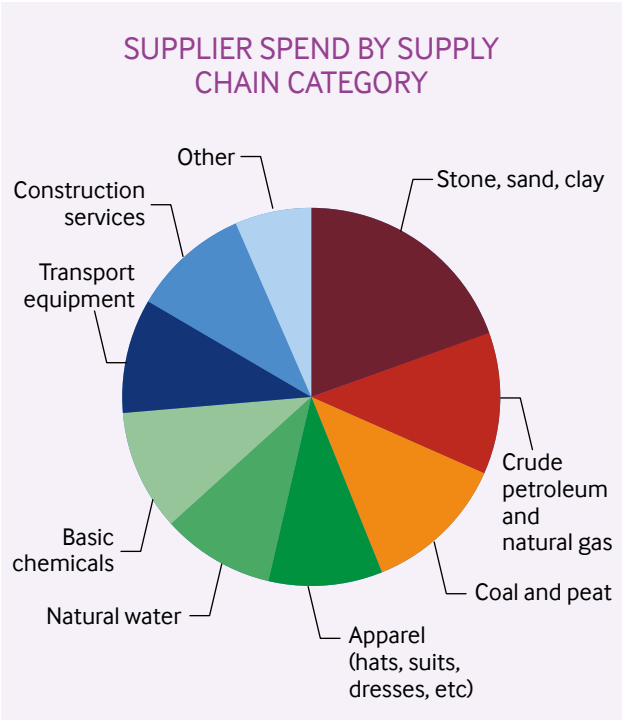
After data is collected, practitioners should review raw data for accuracy, and if required, recycle to ensure its quality. Metrics can then be analyzed. By looking at metrics trends practitioners can measure progress against objectives set by local content plan. Analyzing metric trends can also help to identify externalities and root causes impacting results. The analysis can facilitate consultations with those responsible for implementation to better understand context, continue or reinforce efforts yielding results, or pivot away from activities that do not meet intended outcomes. At this stage it is also helpful to examine progress against objectives set by local content plans based on local market realities and actual procurement activity.

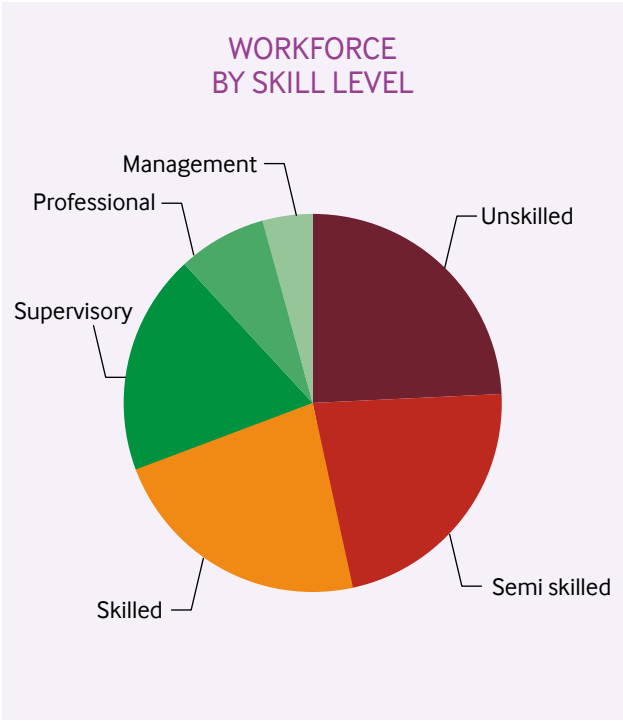
Various reporting techniques and tools are proving to be particularly effective for analytics. For example, organizations can use digital systems to collect local content data, and track trends via dashboards to both facilitate the collection and submission of data and monitor local content performance. While there is cost of configuration and maintenance, digital systems can potentially reduce the effort of manually tracking data and recycling.

Figure 5: Data analysis process

Figure 6: Example of local content metrics display







Section 6

Step 4 – Report and communicate

This section focuses on the final step of the roadmap: reporting and communicating results.

Step 4 – Report and communicate

Historically, local content reporting has been limited to the sharing of information between an operator and a regulator (or a government entity managing the contract) for performance and compliance monitoring. Today, local content reporting can be an effective tool for stakeholder engagement, fostering transparency, alignment, and consensus.

Furthermore, the degree of granularity and detail of reporting has evolved over time, as well as the ability to collect data further within the supply chain to tell a more accurate and compelling story. By understanding how metrics are designed, sourced, analyzed, and reported, stakeholders develop trust in the validity of the outcomes. This, in turn, underpins a more productive engagement based on agreed facts.

Good reporting and communication can help organizations to:

- **Enhance business value:** Investor and regulator trust and confidence can grow with evidence that companies are managing risks and taking advantage of opportunities
- **Clarify purpose:** Examples of current initiatives and long-term plans can show how strategic issues are being addressed, in response to stakeholder expectations
- **Engage employees:** When employees understand companies' sustainability values and external drivers, they can impact performance indicators through their role
- **Strengthen relationships:** Stakeholders can gain a source of reliable information to understand and judge companies' performance
- **Enhance credibility:** Customers, suppliers and the wider society can understand the company's values, brand, operations, and products
- **Improve access to capital:** Evidence shows that good sustainability performance can contribute to improved financial performance

Reporting and communicating the results of the measurement process, should not merely 'tick the box', but provide an engagement opportunity to build capacity, and share results and learnings across various stakeholders.

The core elements of best practice for local content reporting and communications are:

1. Develop a communication strategy
2. Be intentional on timing
3. Use appropriate format for intended audience
4. Learn and improve

Varying perspectives and communication needs of stakeholders

Today, investors are increasingly interested in the impact their investments are making and the degree to which this impact is contributing to the Sustainable Development Goals. Governments want to look beyond supply chain impacts and understand how energy investments are contributing to their countries' economic growth, diversification, and competitiveness. Energy companies want to demonstrate how they are serving as long-term socioeconomic development partners. Tier-1 suppliers want to leverage their local content performance as a source of competitive advantage. Local suppliers want to know if their investments in supplier development improves their ability to win contracts. Civil society groups want to understand how communities are benefitting and how sustainable the local content impact truly is.

It is also important to bear in mind that stakeholder groups are not homogeneous and, therefore, can have different drivers. For example, in the same project, a small energy company that is a non-operator might have motivations very different from those animating the larger operator. Equally, within the same company a contracts and procurement professional's concerns differ from those of a social performance professional. In sum, the local content landscape has evolved into a diverse and highly nuanced mosaic of internal and external stakeholders, each with its distinct characteristics, expectations, and drivers.

DEVELOP A COMMUNICATION STRATEGY AND PLAN

Given the external pressures and multiple dependencies involved with reporting and communicating, practitioners should develop a clear, systematic, and widely accepted process by both internal and external stakeholders. Predictability, consistency, and replicability are cornerstones of local content engagement and reporting. To achieve this disciplined model of reporting, practitioners should consider the following steps to develop a communication strategy.

- Map the targeted stakeholders for communication.
- Select the metrics (and definitions) in the framework that capture the relevant information for the specific audience.
- Select effective communication approach and timeline.

BE INTENTIONAL ON TIMING

Maintaining a timeline to consistently communicate in a transparent manner helps build trust over time. A few recommendations:

- Map key annual deadlines, events, and timelines by stakeholder and develop a calendar of communications
- Communicate early and often to avoid others filling the void with information that might not be based on facts
- Establish the frequency of communication with key stakeholders. Do not let another reporting process (such as the regulatory reporting cycle) dictate the frequency of communication needed by each stakeholder
- Consider aligning communications timing with key events from organizations (annual events, conferences, etc.) that can help disseminate and communicate key messages to broader communities.

USE APPROPRIATE FORMAT

Working across various stakeholders and localities requires using various communication channels and formats, from traditional print products, such as newspapers, to digital media such as supplier portals and social networks. The wide array of media now available makes it possible to tailor the message, format, and channel to the stakeholder group in question. As with any communication, local content practitioners should keep in mind broadband accessibility limitations in many parts of the world, in addition to age, gender, demographic, public media regulations, and so forth. To tailor the communication format to each audience for maximum effectiveness, keep in mind the following.

- Consider factors such as tone, level of technical depth, length, style (verbal/graphic vs. written), and audience language in your choice of format
- Craft a narrative that interprets results and conveys a clear message on progress, risks, and opportunities
- Select the appropriate communication channels for each stakeholder. For example, print (reports, internal briefings, and memos, factsheets, press releases); digital (website, internal portal, social media, blog, supplier portal or application); and in-person (supplier forums, presentations, meetings, workshops, seminars, webinars).
- When appropriate, select the appropriate communication partners (universities, training institutes, chambers of commerce, and industry associations)

TIPS ON REPORTING DATA

Report the total data population as the basis for reporting including the proportion of expenditure not included in this population.

Disaggregate the information reported, so that low or high levels of local content are not hidden within aggregate firms.

Describe the metrics used to generate the reported figures, not only the figures themselves.

LEARN AND IMPROVE

The reporting and communication process should contribute to learning and improvement of local content performance. Equipped with a robust measurement and reporting framework, clear definitions, and relevant metrics, companies are positioned to engage with stakeholders at a technical level (quantitative and qualitative).

With reliable data, companies can draw insights into what is working and what is not—and why—to make any necessary pivots to continue growth or improve performance. Effective communication allows review of progress and getting input for future planning, gap closure, and supporting initiatives to address stakeholders' drivers.

Doing so should consider:

- Explicitly include a process to capture stakeholder input/feedback and incorporate learning for continuous improvement
- Specify how the learnings are recorded and then internalized into the organization's local content measurement and reporting framework and create a mechanism for revisiting the framework itself: *What metrics are working? What are missing? Which are proving not to be valuable or insightful?*
- Create ongoing channels for feedback (such as periodic workshops) so that stakeholders can provide input on the communication process, including what information is useful and what is missing
- Monitor and learn from other sources of local content communication in the market

Section 7

Looking ahead

This section wraps up the guidance by briefly discussing the evolving nature of this topic.

Looking ahead

As the practice of local content continues to formalize and deepen so will the experience on structuring effective and efficient local content measurement and reporting frameworks. This guidance is intended to support practitioners to grow capacity in this evolving space. For example, additional thinking is needed to determine how to aggregate up local content at a global scale in a way that is statistically robust and reliable (i.e., how to standardize and compare local content across jurisdictions that calculate local content differently).

Nonetheless, the energy industry is dynamic and factors such as new sources of renewable and/or low carbon energy; the methods and continued evolution of technologies for digitalization and automation of data collection and processing; as well as consumer demands will require these approaches to be routinely reviewed and improved.

The annexes that follow provide additional resources to help the practitioner shape a fit-for-purpose local content measurement and reporting framework. A list of references and further reading is also provided. These resources also continue to grow as experience and the learnings from measurement and reporting activities will inform the pathway forward. Collectively, this should equip practitioners to realize the goal of energy-driven economic growth and advance the industry's contribution to the 2030 sustainable development agenda.

Annexes

Annex 1: Local content indicators in international reporting frameworks

Annex 2: Table of suggested local content metrics

Annex 3: Considerations when selecting a digital local content reporting system

Annexes

ANNEX 1: LOCAL CONTENT INDICATORS IN INTERNATIONAL REPORTING FRAMEWORKS

Global Reporting Initiative (GRI), *GRI Standard: Oil and Gas Sector*, (2021)

Topic 11.14 Economic Impacts

- 11.14.1 Management of material topics
- Additional sector recommendation: Describe the community development programmes in place that are intended to enhance positive impacts for local communities, including the approach to providing employment, procurement, and training opportunities.
- 11.14.2 Direct economic value generated and distributed
- Additional sector recommendations: Report direct economic value generated and distributed (EVG&D) by project.
- 11.14.3 Proportion of senior management hired from the local community
- 11.14.4 Infrastructure investments and services supported
- 11.14.5 Significant indirect economic impacts
- 11.14.6 Proportion of spending on local suppliers

Ipieca-API-IOGP *Sustainability reporting guidance for the oil and gas industry* (fourth edition, 2020)

Module 6: Social indicators

- SOC-7 Workforce training and development
- SOC-14 Local procurement and supplier development
- SOC-15 Local hiring practices

ANNEX 2: TABLE OF SUGGESTED LOCAL CONTENT METRICS

This annex provides suggested commonly used metrics for local content in key categories including their applicability based on project/investment life cycle phase. The local content metrics provided below are applicable across oil and gas, renewable energy and low-carbon solutions projects/investments. However, it is possible that some modifications may be required based on the type of project and its corresponding life cycle. While not an exhaustive list, is a valuable starting-point from which a robust set of metrics can be selected following the steps and guidelines provided in this guidance.

TABLE NOTES

1. Depth and frequency of Industrial Baseline Study (IBS) vary based on the project/investment life cycle (e.g. desktop preliminary study during the exploration, full study in the development phase, and study updates in production phase)
2. The term 'local' throughout the guidance refers to the geographical scope of project/investment (national, regional, local, or community level).
3. The term local workforce includes both regular employees and staff contrators; local workforce employed refers to regular employees only.
4. Value-add metrics are calculated using a formula with multiple variables. Most often used when manufacturing goods.
5. To avoid double counting, track and report training hours of local workforce (employees and staff contractors only) separately from suppliers' (major contractors and sub-contractors) training hours.
6. For qualitative metrics it is importamt to include a clear narrative of strategies, programmes, and processes. Refer to Ipieca *Sustainability reporting guidance* SOC-7, SOC-14, and SOC-15

ANNEX 2: TABLE OF SUGGESTED LOCAL CONTENT METRICS

Oil and gas life cycle Renewables/low carbon life cycle

METRICS	DESCRIPTION	METRIC SIGNAL	APPROACH	LEVEL OF COMPLEXITY	Exploration / Development	Development / Construction & Installation	Operation / Operations & Maintenance	Decommissioning / Repowering & Decommissioning
WORKFORCE								
Completion of Industrial Baseline Survey (IBS)[1] on local[2] workforce skills	Study	Input	Qualitative/ Quantitative	Complex	x	x	x	x
# FTE local workforce[3]	Head count	Input	Quantitative	Simple	x	x	x	x
% of FTE local workforce vs total workforce	Head count	Input	Quantitative	Simple	x	x	x	x
# FTE local workforce in senior, supervisory, and skilled positions	Head count by job type	Input	Quantitative	Simple	x	x	x	x
$ value of wages, benefits, and social taxes paid to FTE local workforce employed	Wages	Input	Quantitative	Moderate		x	x	x
$ contribution to economic impact from wages, benefits, and social taxes of local workforce employed	Value-add	Output	Quantitative	Complex		x	x	x
% increase of local workforce in various skill positions over specific time period	Nationalization	Output	Quantitative	Moderate	x	x	x	x
% increase of local female workforce across various skill positions over specific time period	Gender diversity	Output	Quantitative	Moderate	x	x	x	x
Succession plan for local workforce across all skill levels	Process indicator	Input	Qualitative[6]	Simple		x	x	
PROCUREMENT OF GOODS AND SERVICES								
Completion of local sourcing strategy/plan for procurement and contracting	Process indicator	Input	Qualitative	Simple	x	x	x	x
Completion of Industrial Baseline Survey (IBS) on supplier capabilities	Study	Input	Qualitative/ Quantitative	Complex	x	x	x	x
# of local suppliers in Supplier Registration Database (SRP)	Number of suppliers	Input	Quantitative	Simple	x	x	x	x
# of contracts awarded to local suppliers	Number of contracts	Input	Quantitative	Simple	x	x	x	x
# of tenders including local suppliers	Number of tenders	Input	Quantitative	Simple	x	x	x	x
# of contracts awarded to local suppliers on competitive procurement processes	Contract activity measure	Input	Quantitative	Simple	x	x	x	x
$ value of contracts executed with local suppliers	Monetary value of contracts	Input	Quantitative	Moderate	x	x	x	x
% spend with local suppliers vs total spend	Spend	Output	Quantitative	Moderate	x	x	x	x
$ value-add[4] of spend (goods and services) with local suppliers	Value-add	Output	Quantitative	Complex		x	x	x
% of value-add of spend (goods and services) with local suppliers vs total value-add spend	Value-add	Output	Quantitative	Complex		x	x	x
TRAINING AND CAPACITY DEVELOPMENT								
Description of strategies and programs to develop skills and capability of local workforce and suppliers	Process indicator	Input	Qualitative	Simple	x	x	x	x
# of different subjects/skills/topics of training delivered	Variety of skill training	Input	Quantitative	Moderate	x	x	x	x
# of training hours[5] received by local workforce (or % of training hours received by local vs total workforce)	Training hours	Input	Quantitative	Moderate	x	x	x	x
$ value of training for local workforce	Value	Input	Quantitative	Moderate	x	x	x	x
# of training hours imparted to direct local suppliers (e.g. via supplier forum, Enterprise Development Center)	Capacity improvement	Input	Quantitative	Simple	x	x	x	x
$ value of local supplier development programs	Value	Input	Quantitative	Moderate	x	x	x	x
Completion of government capacity-building strategy/plan (e.g. local content training)	Process indicator	Input	Qualitative	Simple	x	x	x	x
Improvement in Health, Safety, and Environment (HSE) compliance among local suppliers	Capacity improvement	Output	Qualitative	Complex	x	x	x	x
INVESTMENT SUPPORTING CAPACITY DEVELOPMENT PROGRAMMES & INFRASTRUCTURE								
Infrastructure investment strategy/plan	Process indicator	Input	Qualitative	Simple		x	x	x
# of support programs and/or infrastructure investments	No. of projects	Input	Quantitative	Simple	x	x	x	x
$ value of support programs/infrastructure investments (e.g. improvement of training facilities, purchase of equipment)	Value	Input	Quantitative	Moderate	x	x	x	x
Increased economic output as a result of investments in programmes/infrastruture	Economic impact	Output	Quantitative	Complex			x	x
# of hours of local workforce per year	Person-hours	Input	Quantitative	Simple	x	x	x	x

Research and Development (R&D) and Technology Transfer metrics are most relevant for major capital projects/investments during later phases of the life cycle. They can be used to promote scientific and technological developments where commonly multiple stakeholders are involved.

● Oil and gas life cycle ● Renewables/low carbon life cycle

R&D AND TECHNOLOGY TRANSFER	DESCRIPTION	METRIC SIGNAL	APPROACH	LEVEL OF COMPLEXITY	Exploration	Development	Operation	Decommissioning
					Development	Construction & Installation	Operations & Maintenance	Repowering & Decommissioning
Completion of R&D and Technology Transfer plans	Process indicator	Input	Qualitative	Simple		x	x	x
$ value of investment in R&D and Technology Transfer programs	Value	Input	Quantitative	Moderate		x	x	x
# of hours of R&D performed in-country	In-country R&D	Input	Quantitative	Moderate		x	x	x
$ value of investment in shared assets (e.g. technology hubs, laboratories)	Value	Input	Quantitative	Moderate		x	x	x
# of Technology Licensing and Technology Partnership Agreements	Agreements in place	Input	Quantitative	Simple		x	x	x
$ value of training of nationals in R&D related fields	Value	Input	Quantitative	Moderate		x	x	x

ANNEX 3: CONSIDERATIONS WHEN SELECTING A DIGITAL LOCAL CONTENT REPORTING SYSTEM

In assessing a digital solution for local content measurement and reporting, the following elements should be considered:

- **Flexibility and configurability.** No two local content regimes are the same and it is important to be able to configure the technology to the local requirements. The solution should have the flexibility to create different 'instances' of the application with geographically distinct sets of metrics, but also the ability to track a common set of global metrics (if appropriate to the organization using it). Since digital solutions aim to facilitate standardization, the differences in local content definitions and type of projects add complexity to the design and configurability of the system.
- **Cost and access.** Implementing a digital platform to collect and report local content metrics can save practitioners time and resources, it can also add operational expenses (e.g., configuration costs, annual license fee, maintenance costs, training, customer service). In addition, depending on the location of the operations, practitioners may encounter access problems (e.g., unstable and/or limited internet access, lack of power, language barriers).
- **Easy user interface.** Users must be able to readily enter data through an intuitively understandable interface. Experience shows that the precision of local content data entry erodes as one moves through each successive tier in the supply chain. A simple, data entry interface is critical to enable suppliers across the supply chain to report seamlessly.
- **Verifiability of data.** A robust system should have appropriate data verification checks in place to ensure that any data entered is accurate.
- **Analytical functions.** Data collection systems that also enable the users to analyse data are becoming more valuable. Such capabilities streamline the collection-to-analysis process and facilitate learning, especially when the system can automatically produce the metrics and outputs needed to assess performance.
- **Communication.** If a system enables direct interactions with supply chain participants, it can improve efficiency in the data collection process. Organizations can remind suppliers to enter the required data according to their deadlines and seek clarifications on any issues with the data, thereby streamlining communications.

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Ipieca is the global oil and gas association dedicated to advancing environmental and social performance across the energy transition. It brings together members and stakeholders to lead in integrating sustainability by advancing climate action, environmental responsibility and social performance across oil, gas and renewables activities.

Ipieca was founded at the request of the United Nations Environment Programme in 1974. Through its non-lobby and collaborative approach Ipieca remains the industry's principal channel of engagement with the UN.

14th Floor, City Tower
40 Basinghall Street
London EC2V 5DE
United Kingdom

T: +44 (0)20 7633 2388

E: info@ipieca.org

Ipieca
@Ipieca
www.ipieca.org