

# Deloitte.

In partnership with



## Oil & Gas Industrial Baseline Survey – Namibia





## **EXECUTIVE SUMMARY**

### **1. CONTEXT & OBJECTIVES**

2. LC ASSESSMENT – OVERVIEW

3. LC ASSESSMENT – SUPPLY CHAIN

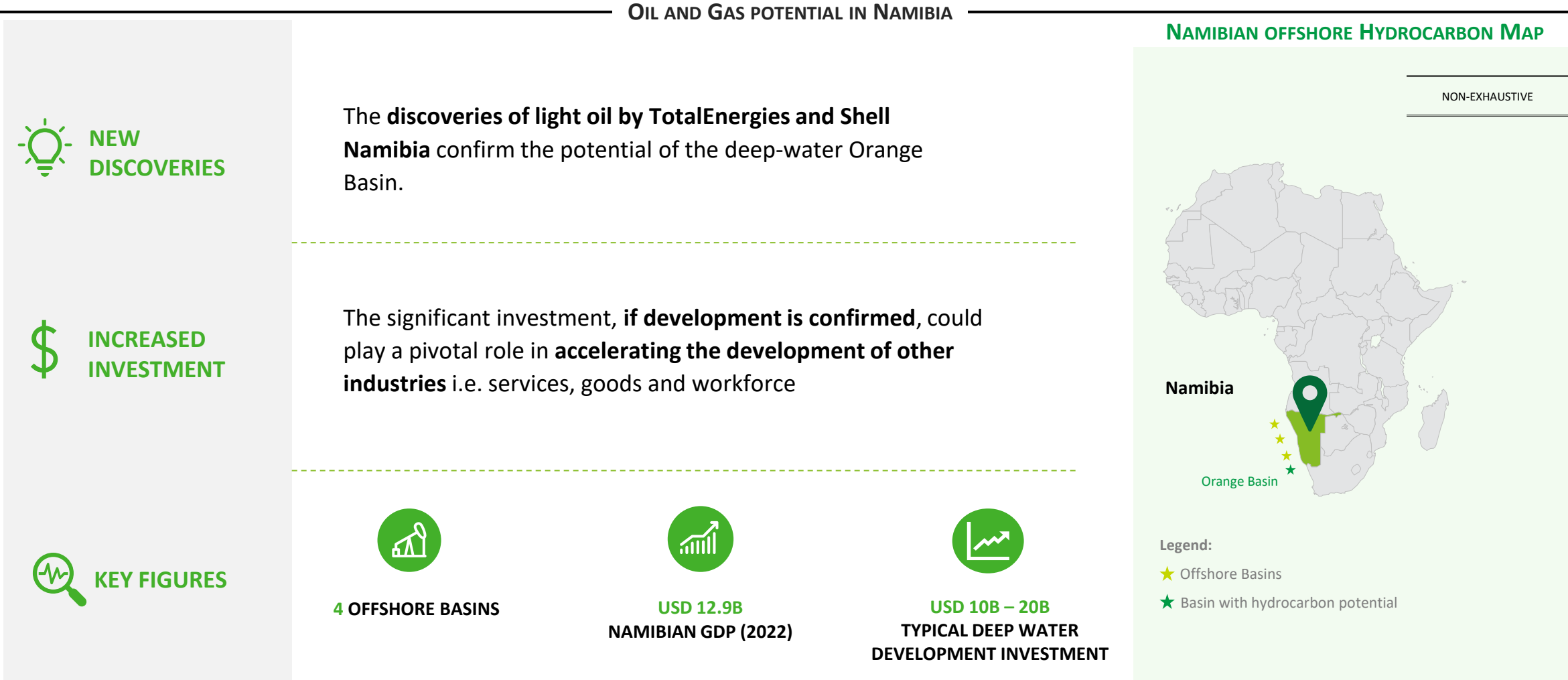
4. LC ASSESSMENT – WORKFORCE

5. LC ECONOMIC IMPACT ANALYSIS

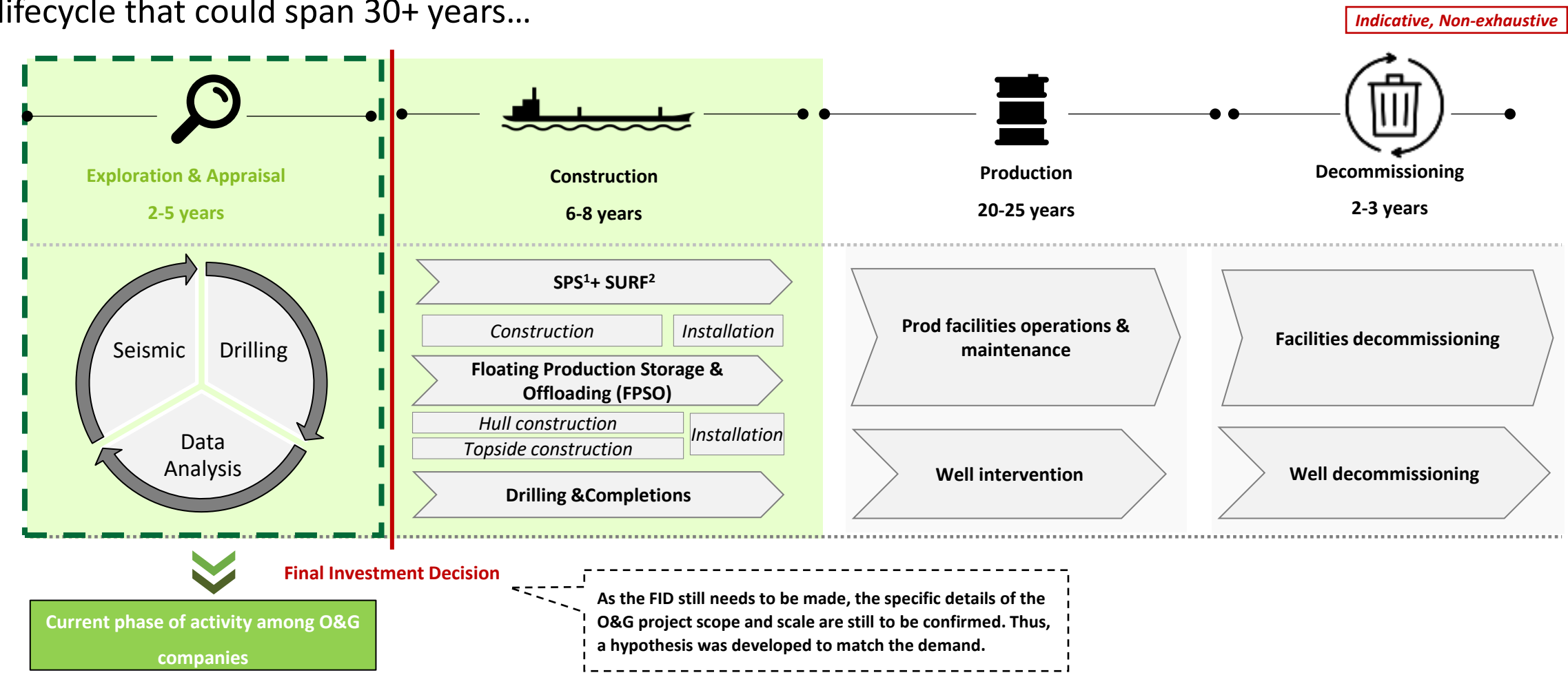
6. POTENTIAL NEXT STEPS



# Namibia's recent Oil and Gas discoveries in the Orange Basin have been a driver for new opportunities and a potential for economic growth, with significant investment across the lifecycle



The Namibian Oil and Gas projects are still in the pre-Final Investment Decision (FID) phase of a project lifecycle that could span 30+ years...



**Legend:**

- Current pre-FID phase of activity among O&G companies in Orange Basin
- Phases financed 100% at risk by Oil & Gas companies with no revenue untill production phase

Notes: 1.SPS: Subsea production system 2. SURF: Subsea umbilicals, risers and flowlines.

## ...TotalEnergies and Shell made decision to launch a comprehensive and independent Industrial Baseline Survey (IBS) to identify potential Local Content (LC) opportunities ...

### WHAT IS THE IBS

An **Industrial Baseline Survey (IBS)** is intended to evaluate a country's **industrial** and **workforce readiness** for oil and gas projects, assessing resources and future development needs, and **identifying potential opportunities** for **capacity and capability improvement**.

**Note:** Generally, an IBS is commissioned once the FID milestone has been reached. To be proactive, this IBS was launched early to aid in guiding policy development and assisting government in prioritization when setting long term economic objectives. It also gives Namibian industry and workforce time to develop local content potential.

In the interim, project scenarios are used to estimate potential demand for goods, services and workforce. Following FID, these project demand estimates would be refined.



### WHY IS AN IBS IMPORTANT

- 1 To **prepare communications and public awareness campaigns** for stakeholders to manage expectations of the industry and the unique requirements of the industry.
- 2 To better **understand the Namibian O&G ecosystem and identify potential Local Content (LC) opportunities** for suppliers and workforce.
- 3 To assess a **realistic level of LC potential in the short-to-long term**, based on O&G project demand and local capabilities
- 4 To **identify key investments or changes that are required soon**, as local content development involves a long-term strategy, with short-term actions.
- 5 To better understand the **Namibian investment case** to support the FID.

...and to assess the state of Namibia’s local supply chains and workforce needed to meet the standards of the Oil & Gas industry, taking into account their core and fundamental requirements

CORE REQUIREMENTS

HSSE standards



- Need for high Health, Safety, Security and Environment (HSSE) standards, as defined by the International Association of Oil and Gas Producers (IOGP), to be met by local companies and the workforce
- Given the high risk of certain O&G activities, this is a non-negotiable requirement that needs to be met by suppliers
- Requirement of robust monitoring and reporting

Ethics, Compliance and Transparency



- Need for robust processes to ensure compliance with O&G Industry's internal policies and external regulations regarding ethical and anti-corruption practices
- Requirement of robust monitoring and reporting

FUNDAMENTAL REQUIREMENTS

Capacity



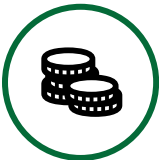
- **For supply chains:** Need for a sufficient volume of local goods and services to meet significant need of O&G projects
- **For workforce:** Need for enough labor across multiple skills and positions to address O&G project requirements

Quality



- **For supply chains:** Need for right quality standards and product reliability to meet the exacting requirements of O&G projects
- **For workforce:** Need for well-trained workers with adequate competency and experience, technicians and engineers, holding certifications required by the O&G industry

Competitiveness



- **For supply chains:** Need for local goods and services to be competitive when compared with equivalent international sources
- **For workforce:** Need for local workers, technicians and engineers to be accessible and trainable at competitive costs to recruiting expats

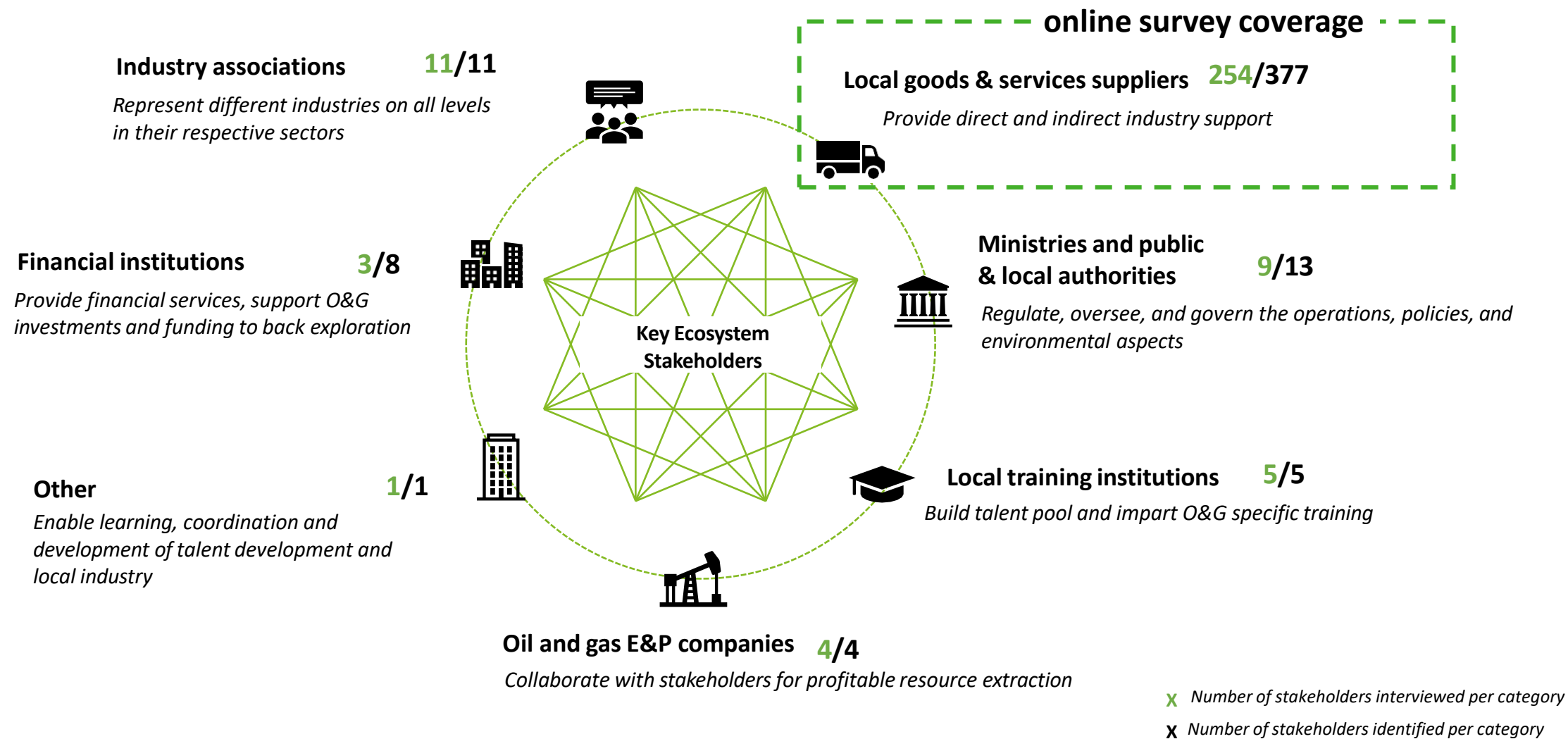




## EXECUTIVE SUMMARY

1. CONTEXT & OBJECTIVES
- 2. LC ASSESSMENT – OVERVIEW**
3. LC ASSESSMENT – SUPPLY CHAIN
4. LC ASSESSMENT – WORKFORCE
5. LC ECONOMIC IMPACT ANALYSIS
6. POTENTIAL NEXT STEPS







As insights from stakeholders were crucial to the IBS study, a detailed stakeholder mapping exercise helped identify ~437 stakeholders across 7 categories for in-depth interviews or online surveys



\*Includes supplier list provided by TotalEnergies & Shell  
© 2024. For information, contact Deloitte Touche Tohmatsu Limited.

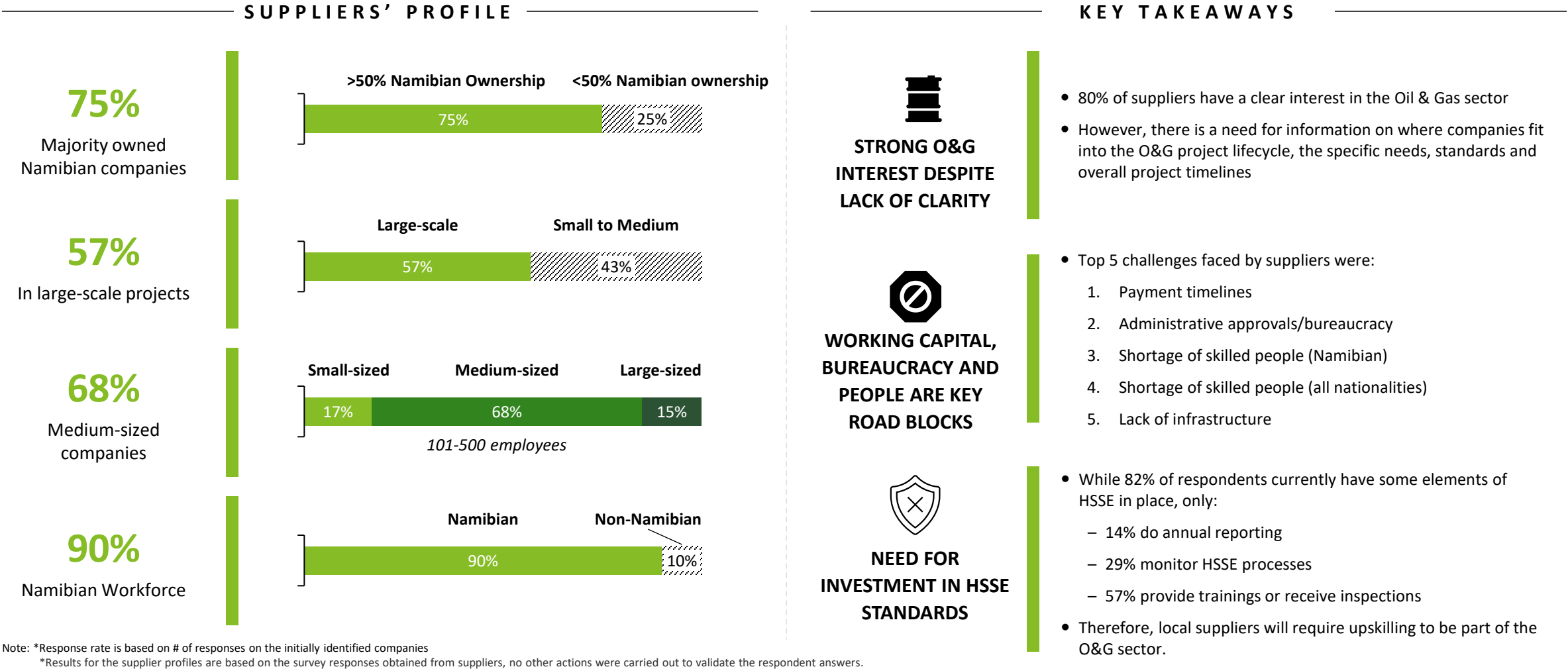


...which generated key insights on stakeholder’s expectations of the growing O&G ecosystem, as well as the key challenges anticipated in developing local supplier and workforce capabilities

	EXPECTATIONS OF O & G INDUSTRY	CHALLENGES
<div> TECHNICAL</div>	<ul style="list-style-type: none"><li>• <b>Maximum possible usage of Namibian suppliers</b> in the supply chain</li></ul>	<ul style="list-style-type: none"><li>• Complex supply <b>planning</b> due to general <b>lack of knowledge</b> on the sector</li><li>• <b>Stringent O&amp;G requirements</b> for suppliers preventing effective local participation especially for the youth</li></ul>
<div> FINANCIAL</div>	<ul style="list-style-type: none"><li>• <b>Positive contribution to GDP</b> (including eradication or alleviation of poverty)</li></ul>	<ul style="list-style-type: none"><li>• <b>Lack of capital</b> to fund projects and businesses (esp. SMEs)</li><li>• <b>Lack of anticipation of economic upset</b> (risk of “Dutch Disease”)</li><li>• <b>Long payment timelines in O&amp;G sector</b></li></ul>
<div> EDUCATIONAL</div>	<ul style="list-style-type: none"><li>• <b>Meaningful skill transfers and training</b> to benefit Namibians, with <b>special emphasis on the youth</b></li></ul>	<ul style="list-style-type: none"><li>• <b>Lack of readiness of educational institutions</b> with regards to specialized O&amp;G qualifications</li></ul>
<div> LEGAL</div>	<ul style="list-style-type: none"><li>• Support in finalizing the <b>Local Content Policy</b></li></ul>	<ul style="list-style-type: none"><li>• <b>Challenging Permits and VISAs processes</b> for skilled foreigners due to unfavourable immigration policies</li><li>• <b>Insufficient coverage of HSSE</b> in current <b>Labour Act</b></li></ul>
<div> POLITICAL</div>	<ul style="list-style-type: none"><li>• <b>Transparency</b> from government, major oil players and other key stakeholders <b>to mitigate the risk of corruption</b></li></ul>	<ul style="list-style-type: none"><li>• Limited sector growth due to <b>resource misappropriation, lack of integrity and lack of accountability</b></li><li>• <b>Fronting of companies<sup>1</sup> as Namibian owned</b> in the supply chain</li></ul>
<div> WORKFORCE</div>	<ul style="list-style-type: none"><li>• <b>Prioritisation of employment</b> of adequately <b>skilled Namibians</b></li><li>• <b>Alignment of existing skills</b> in Namibia <b>to the O&amp;G Sector</b></li></ul>	<ul style="list-style-type: none"><li>• <b>Limited economically active population</b> that could impact the potential for local workforce hiring in upcoming O&amp;G projects</li><li>• <b>Workforce migration</b> from other sectors due to higher compensation</li></ul>

1. Fronting means a deliberate circumvention or attempted circumvention of the Equitable Economic Empowerment Scorecard and Affirmative Action Act. Fronting commonly involves reliance on data or claims of compliance based on misrepresentations of facts, whether made by the party claiming compliance or by any other person.

In parallel, the online survey and site visits of suppliers gathered insights from 254 suppliers, majority being medium-sized majority owned Namibian companies, with a strong interest in the O&G industry

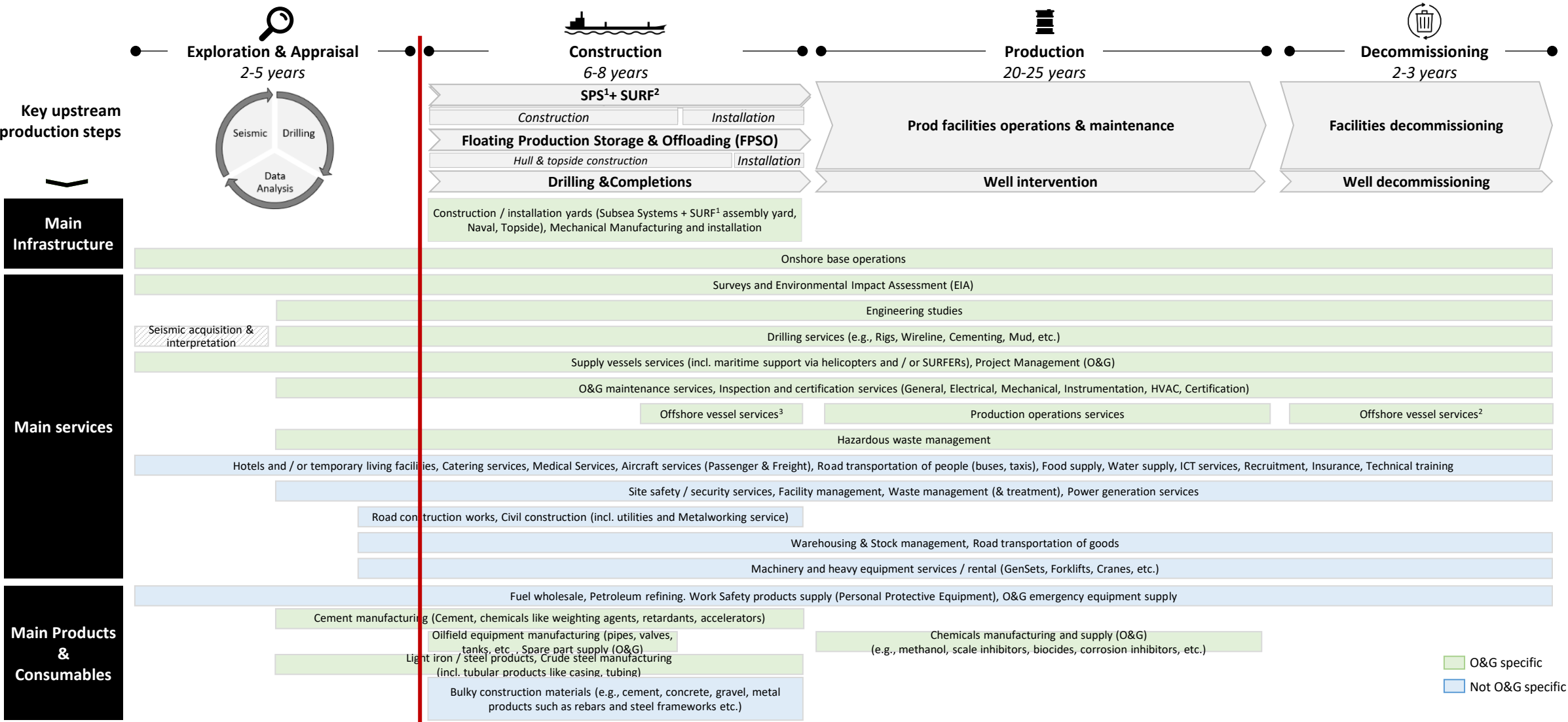


## EXECUTIVE SUMMARY

1. CONTEXT & OBJECTIVES
2. LC ASSESSMENT – OVERVIEW
- 3. LC ASSESSMENT – SUPPLY CHAIN**
4. LC ASSESSMENT – WORKFORCE
5. LC ECONOMIC IMPACT ANALYSIS
6. POTENTIAL NEXT STEPS

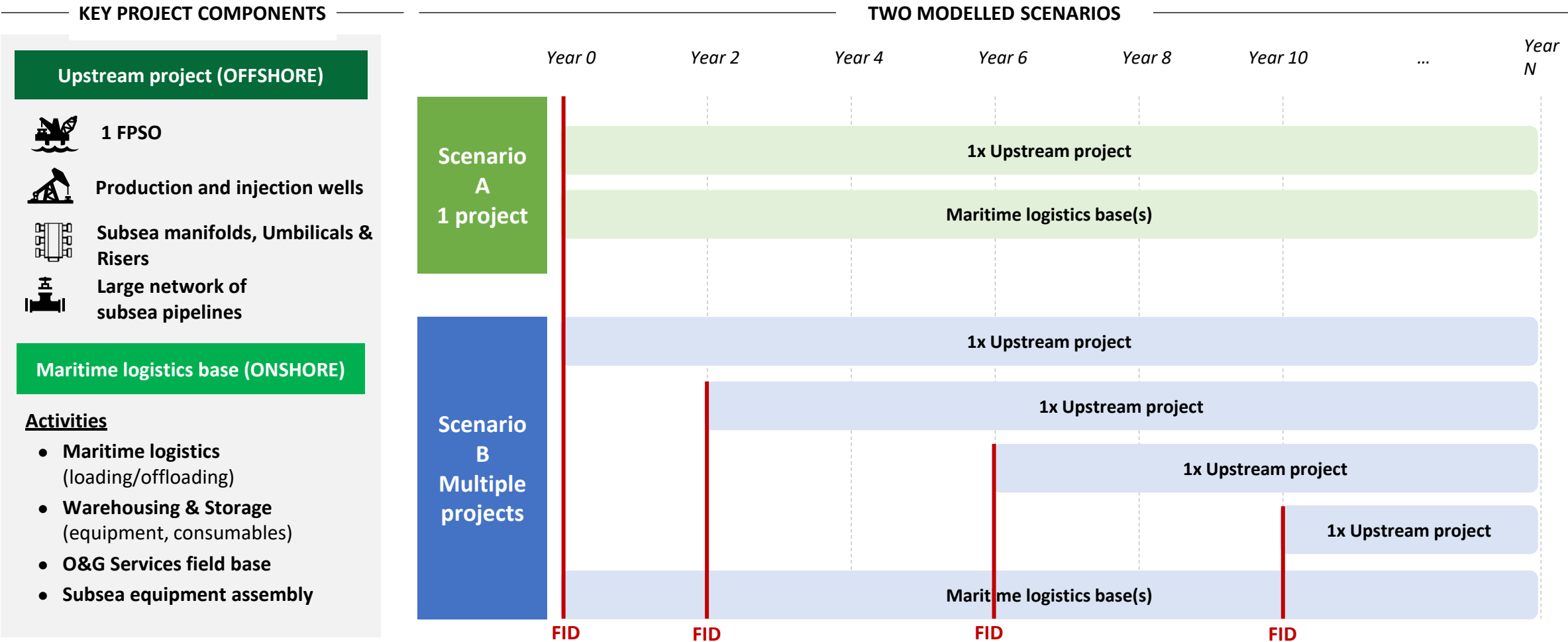


To conduct a detailed supply chain assessment, the varying supply chain needs across the 30+ year lifecycle of upstream projects – O&G-specific and non-specific – were considered in the analysis

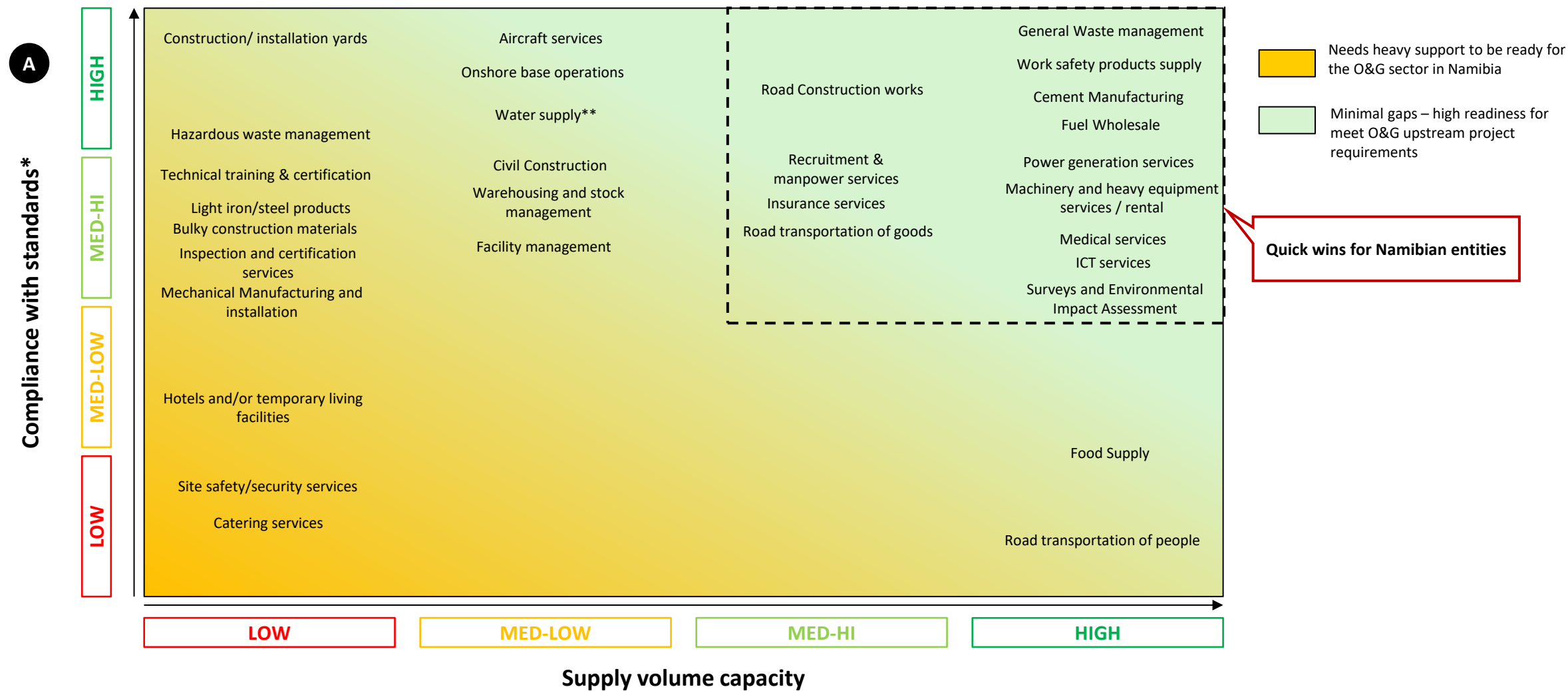




However, due to project demand uncertainty during the pre-FID phase, a scenario-based modelling of the O&G demand was leveraged to estimate the supply chain needs of potential O&G projects in Namibia



By evaluating supply chain readiness, 13 supply chains were identified to have minimal gaps, hence offering quick wins for Namibian entities...



*Note: Results for the gap analysis are based on the survey responses obtained from suppliers, no other actions were carried out to validate the respondent answers.*

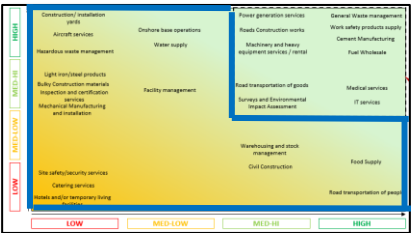
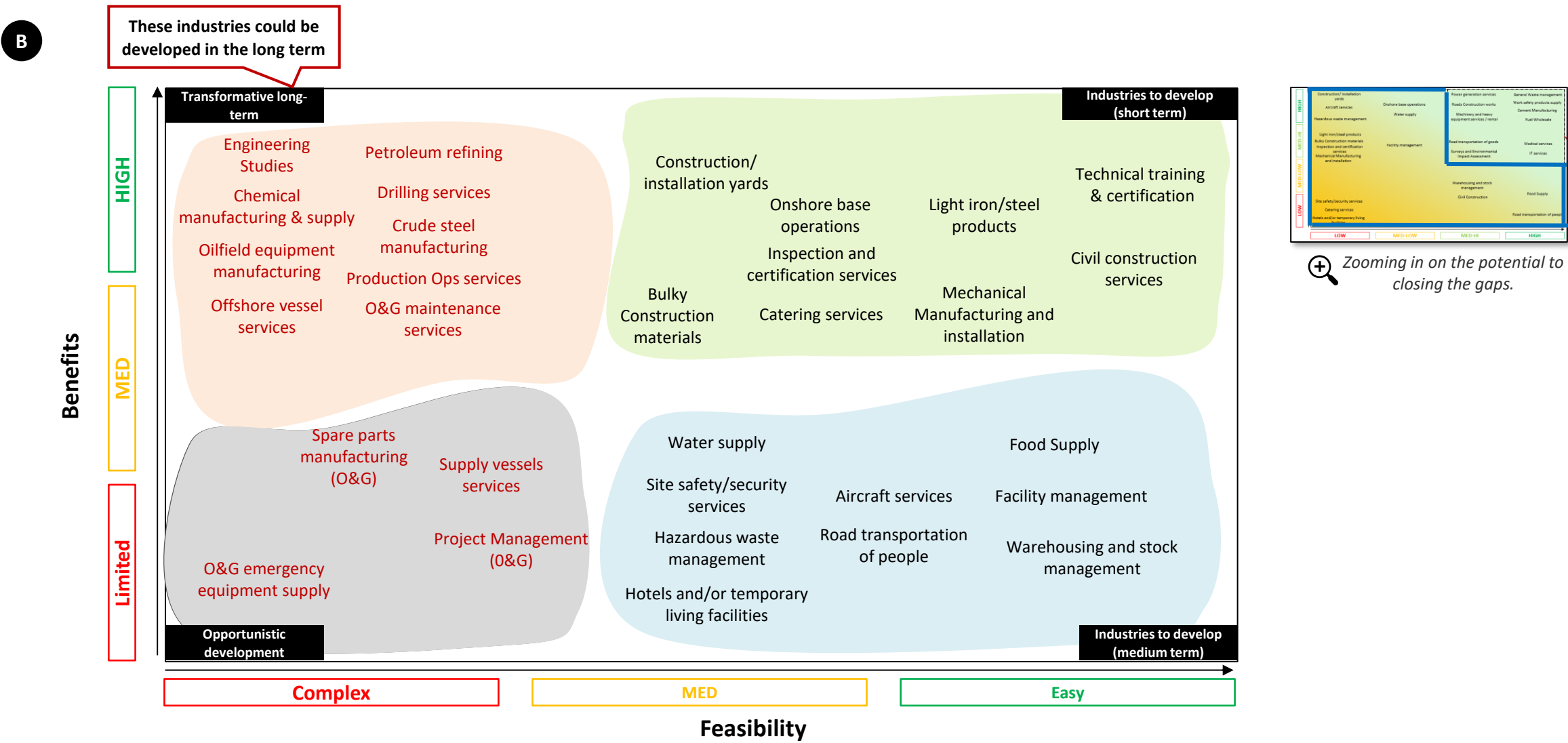
\*As the O&G sector in Namibian is relatively new, local companies with current high compliance with standards may still need additional support from Oil & Gas Industry to meet the necessary O&G compliance requirements.

\*\*supply can potentially face disruptions in case of adverse weather conditions (droughts) at country level

© 2024. For information, contact Deloitte Touche Tohmatsu Limited.

Industrial Baseline Survey (IBS) for the Namibian upstream oil & gas industry

...while the prioritization of supply chains with moderate to significant gaps helped identify 9 supply chains that offered high benefits with potentially reasonable development efforts and investments



Zooming in on the potential to closing the gaps.

## EXECUTIVE SUMMARY

1. CONTEXT & OBJECTIVES
2. LC ASSESSMENT – OVERVIEW
3. LC ASSESSMENT – SUPPLY CHAIN
- 4. LC ASSESSMENT – WORKFORCE**
5. LC ECONOMIC IMPACT ANALYSIS
6. POTENTIAL NEXT STEPS





Based on the demand-supply analysis, some qualifications were found to have sufficient local availability, however further upskilling will be required to meet O&G standards.

	High supply qualifications	Medium - High Supply qualifications	Low supply qualifications	No local supply qualifications
Criteria	Supply / Demand ratio >200% For each year After FID <sup>1</sup>	100% < Supply / Demand ratio <200% On at least a year After FID <sup>1</sup>	Supply / Demand ratio <100% On at least a year After FID <sup>1</sup>	Supply / Demand ratio =0% For each year After FID <sup>1</sup>
Skilled	<ul style="list-style-type: none"><li>Accounting / finance studies</li><li>Architecture</li><li>Business studies</li><li>Computer engineering</li><li>Environmental health sciences</li><li>HR studies</li><li>Law studies</li><li>Marketing studies</li><li>Transport and logistics engineering</li></ul>	<ul style="list-style-type: none"><li>Civil engineering*</li><li>Geology</li></ul>	<ul style="list-style-type: none"><li>Electrical engineering*</li><li>Mechanical engineering*</li><li>Chemical / industrial engineering*</li></ul>	<ul style="list-style-type: none"><li>Petroleum engineering</li></ul>
Semi-skilled	<ul style="list-style-type: none"><li>Accounting &amp; Finance</li><li>Business Administration/Services</li><li>Bricklaying and Plastering</li><li>Carpentry &amp; Joinery</li><li>Construction Engineering</li><li>Data technician</li><li>Electrical technician</li><li>Food and Beverage</li><li>Forklift</li><li>Instrumentation</li><li>Mechanical Occupational Health and safety</li><li>Office Administration</li><li>Paralegal</li><li>Paramedics</li><li>Plumbing</li><li>Real Estate</li><li>Surveying</li><li>Tractor Loader Backhoe (TLB)</li><li>Welding (construction)</li></ul>	<ul style="list-style-type: none"><li>Civil Construction management</li><li>Commercial Cookery</li><li>Construction carpentry</li><li>Logistics management</li><li>Tiling</li></ul>	<ul style="list-style-type: none"><li>Maritime Studies</li></ul>	<ul style="list-style-type: none"><li>Diving certificate</li><li>Laboratory / chemistry</li><li>Pipefitting</li><li>Welding (specific to O&amp;G)</li><li>Industrial process</li><li>Petroleum studies</li></ul>

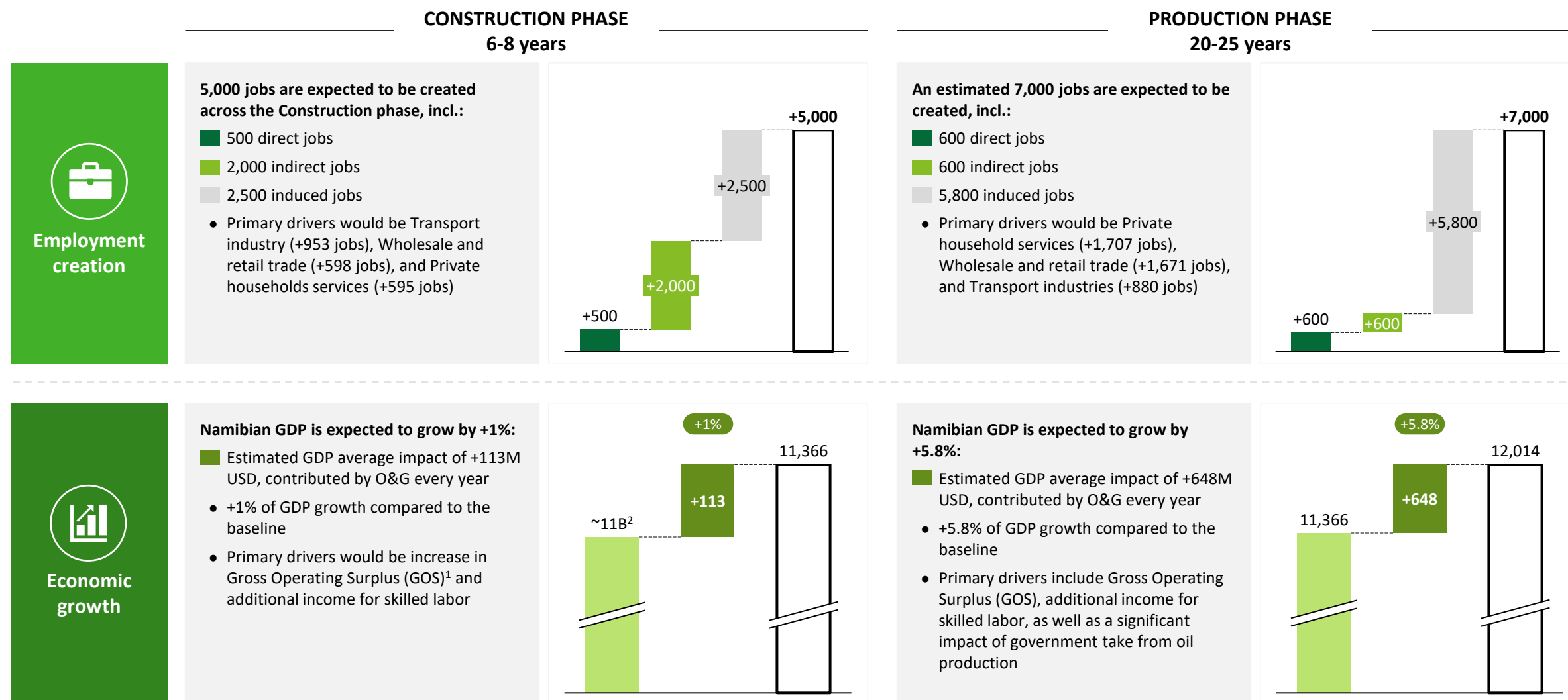
Note: \*some job types are O&G-specific and would require upskilling / training specific to the industry upon recruitment; 1. The FID was anticipated to occur by Year 5, hence Year 5 is the starting point of this analysis. Furthermore, the period of year 5 to year 22 was focused on as it is considered to be sufficiently representative of the construction and production phase of the project  
© 2024. For information, contact Deloitte Touche Tohmatsu Limited.

## **EXECUTIVE SUMMARY**

1. CONTEXT & OBJECTIVES
2. LC ASSESSMENT – OVERVIEW
3. LC ASSESSMENT – SUPPLY CHAIN
4. LC ASSESSMENT – WORKFORCE
- 5. LC ECONOMIC IMPACT ANALYSIS**
6. POTENTIAL NEXT STEPS

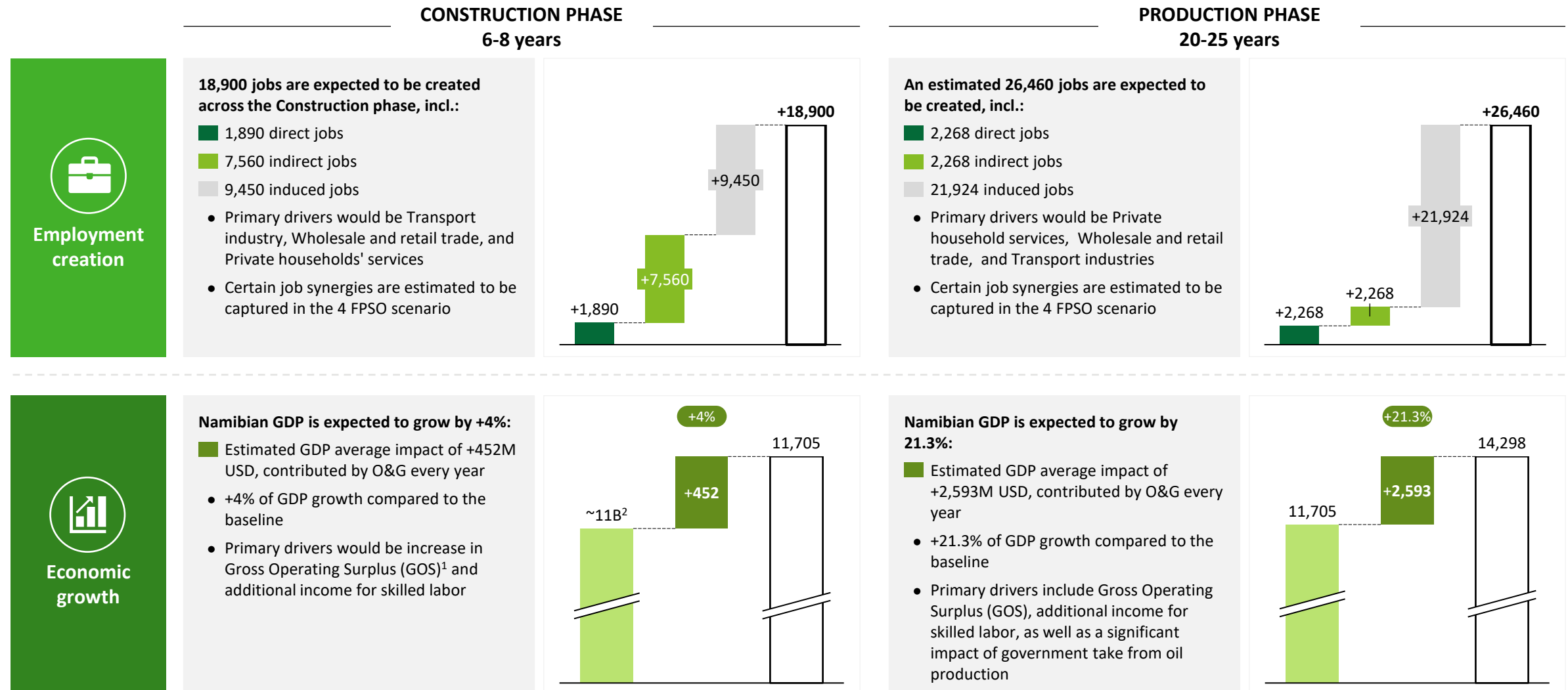


In the 1 FPSO scenario, the economic impact assessment estimates ~1% GDP growth and 5K jobs created during Construction, and 5.8% GDP growth and 7k jobs created in the Production phase



Notes: 1. GOS: portion of income derived from production by incorporated enterprises that are earned by the capital factor; 2. Model output based on SAM 2013, adjusted at factor cost of 2023

In the 4 FPSOs scenario, the economic impact assessment estimates ~4% GDP growth and ~19k jobs created during Construction, and 21% GDP growth and ~26k jobs created in the Production phase



Notes: 1. GOS: portion of income derived from production by incorporated enterprises that are earned by the capital factor; 2. Model output based on SAM 2013, adjusted at factor cost of 2023

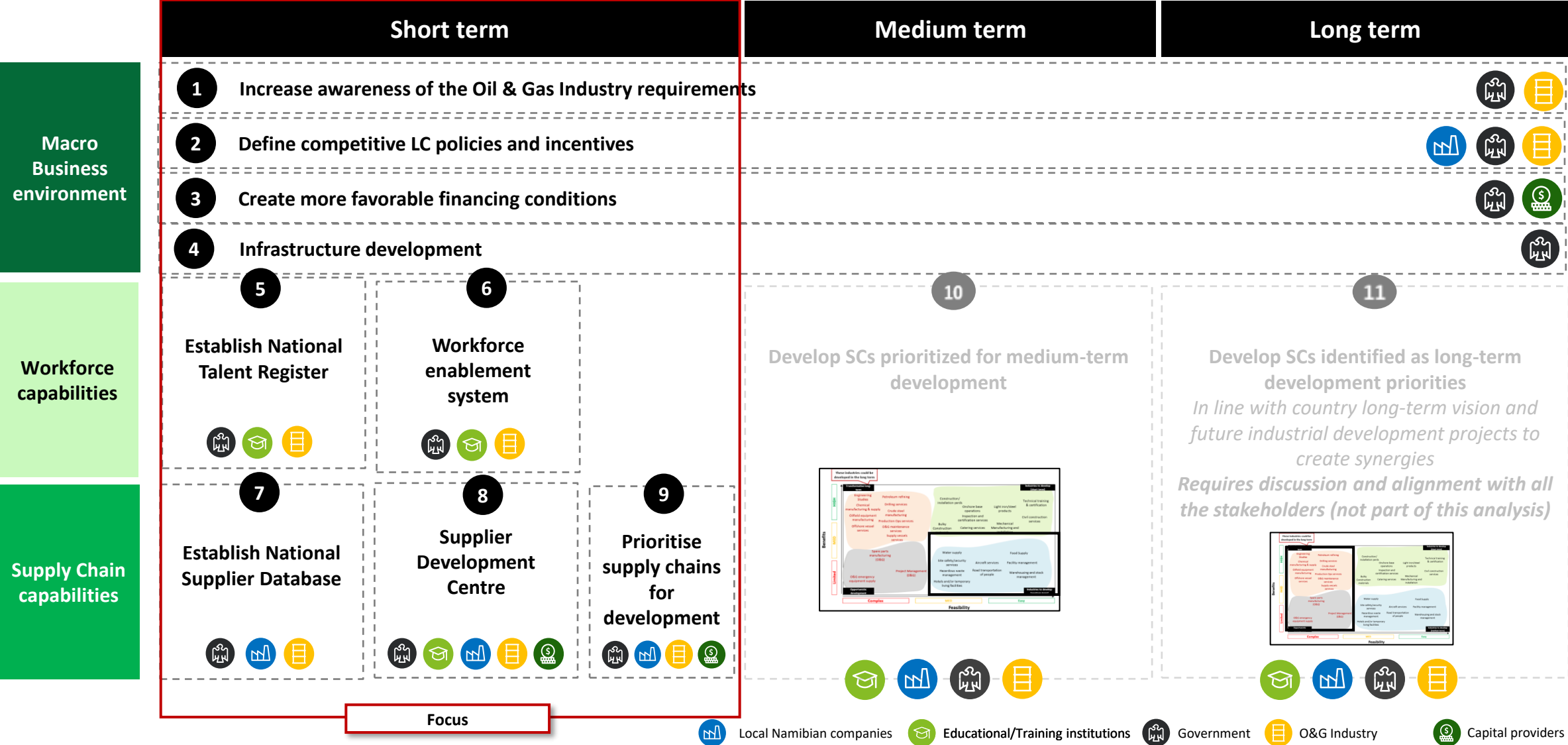




## EXECUTIVE SUMMARY

1. CONTEXT & OBJECTIVES
2. LC ASSESSMENT – OVERVIEW
3. LC ASSESSMENT – SUPPLY CHAIN
4. LC ASSESSMENT – WORKFORCE
5. LC ECONOMIC IMPACT ANALYSIS
- 6. POTENTIAL NEXT STEPS**

Based on the LC assessment and economic impact analysis, 9 targeted initiatives were identified to maximize LC over the project’s lifecycle, each requiring the involvement of various stakeholders to ensure success



# Disclaimer

- This IBS is an **independently commissioned study**. Results for the supplier profiles are **based on the survey responses obtained from suppliers**, no other actions were carried out to validate the respondent answers.
- As the FID stage of the Oil and Gas (O&G) project is still pending, concrete figures regarding project spend, workforce requirements, etc. were not available. Hence, **a hypothetical project estimation was developed to simulate the potential demand from this O&G project**. Therefore, all figures should be considered as directional.
- The hypothetical project **estimation is built on several hypotheses on the project scope, scale, and operational specificities** that significantly impacts demand estimation in terms of:
  - **The project spend**, as well as the consequent demand for varied goods and services, across the varied phases of the project lifecycle – which, in turn, impacts the project requirements from varied supply chains
  - **The workforce requirement** in terms of scale and scope of roles and seniority levels across the varied phases of the project lifecycle
- The **supply side assessment of the capacity and quality standards was driven by different stakeholder interviews, supplier survey responses, supplier site visits, as well as research** into varied industries. However, **no on-site technical evaluation of supplier capabilities was conducted** within the scope of activities. Although best efforts were made to cross check varied information sources and adjust the supply chain assessment, the results should be considered as directional.
- **In the estimation of local content potential, a conservative approach has been adopted** to account for the hypothetical nature of demand estimates and variability in local supply chain capabilities. Therefore, the results – local content potential and economic impact – **allow for upside potential for higher localization of spend** – subject to variations in project needs, supplier development, government policies, industry investments, etc.



## Industrial Baseline Survey for the Namibian upstream Oil and Gas Industry.

The full report is now available on our website.

Scan the QR code to access the full report below:



**MAKING AN IMPACT THAT MATTERS**  
*since 1845*







Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited (DTTL), its global network of member firms, and their related entities (collectively, the “Deloitte organization”). DTTL (also referred to as “Deloitte Global”) and each of its member firms and related entities are legally separate and independent entities, which cannot obligate or bind each other in respect of third parties. DTTL and each DTTL member firm and related entity is liable only for its own acts and omissions, and not those of each other. DTTL does not provide services to clients. Please see [www.deloitte.com/about](http://www.deloitte.com/about) to learn more.

Deloitte provides industry-leading audit and assurance, tax and legal, consulting, financial advisory, and risk advisory services to nearly 90% of the Fortune Global 500® and thousands of private companies. Our professionals deliver measurable and lasting results that help reinforce public trust in capital markets, enable clients to transform and thrive, and lead the way toward a stronger economy, a more equitable society and a sustainable world. Building on its 175-plus year history, Deloitte spans more than 150 countries and territories. Learn how Deloitte’s approximately 415 000 people worldwide make an impact that matters at [www.deloitte.com](http://www.deloitte.com)

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited (DTTL), its global network of member firms or their related entities (collectively, the “Deloitte organization”) is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser.

No representations, warranties or undertakings (express or implied) are given as to the accuracy or completeness of the information in this communication, and none of DTTL, its member firms, related entities, employees or agents shall be liable or responsible for any loss or damage whatsoever arising directly or indirectly in connection with any person relying on this communication. DTTL and each of its member firms, and their related entities, are legally separate and independent entities.

© 2024. For information, contact Deloitte Touche Tohmatsu Limited.