Building valuable connections

Capital management in the global telecommunications sector

A survey of leading practices and emerging trends

KPMG International

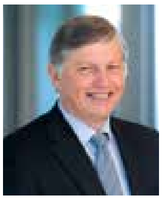
Foreword

The global telecommunications (telecom) industry is capital intensive and fiercely competitive. Fast-paced technology change, insatiable demand for data, and increased rivalry are driving considerable investment in next generation technologies, new markets, innovative products and services, strategic alliances and fresh business models. As they grapple with these challenges, global telecom companies continue to seek the right mix of investments to maximize long-term shareholder value, by ensuring that capital expenditure is closely aligned to strategic goals.

Capital management is not just about making the right investment decisions; it's also about continually monitoring a portfolio of investments to ensure that they are being run efficiently and are helping the business compete and grow profitably. The relentless speed of technological innovation, along with continually evolving customer expectations, means that all telecom businesses must be increasingly agile. At the same time, they need to keep a watchful eye on shorter-term cash flow, stock prices, and their broader social and environmental performance to maintain their 'license to operate.'

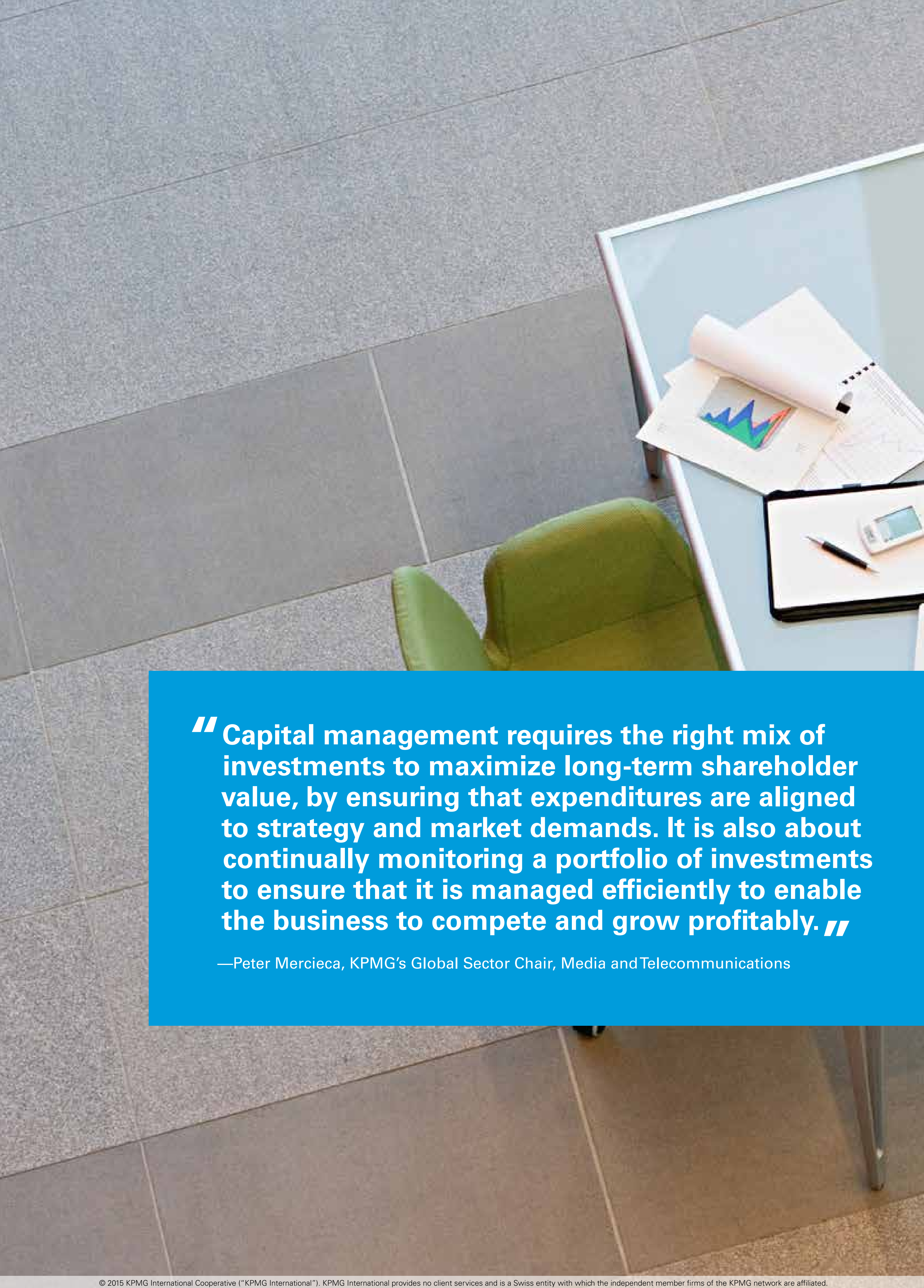
In this survey, KPMG explores how telecom companies are managing their capital, and shares leading practices and emerging trends within the sector and in other capital-intensive industries (mining, utilities and construction). With telecoms companies expected to spend two trillion US dollars (US$) of capital expenditure between 2014 and 2019,[1] the insights in the paper should help those responsible for capital management make the most of this significant investment.

Peter Mercieca
Global Sector Chair
Media and Telecommunications



Nick Ridehalgh
Partner, KPMG in Australia

[1] *Communications Service Provider Revenue & CAPEX Forecast:* 2014–19, Ovum, 2014.



“Capital management requires the right mix of investments to maximize long-term shareholder value, by ensuring that expenditures are aligned to strategy and market demands. It is also about continually monitoring a portfolio of investments to ensure that it is managed efficiently to enable the business to compete and grow profitably.”

—Peter Mercieca, KPMG’s Global Sector Chair, Media and Telecommunications

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Highlights

KPMG's global survey of telecom and other capital-intensive businesses reveals similarities in the way in which capital resources are managed globally, identifies differences in approach and shines the spotlight on emerging practices and opportunities for further improvement.

- There are strong governance processes over capital management decisions, through Board and Executive Capital Committee oversight and an effective capital management framework. Opportunities exist to closer align executive remuneration with capital management performance.
- Capital planning is typically led by the Chief Financial Officer (CFO) and standardized across the group through policies, processes and reporting systems and practices. Capital plans tend to be a combination of top-down/bottom-up with centralized decision-making on strategic priorities.
- Capital planning is time-intensive; typically requiring more than 3 months to complete, with most plans covering only 12 months in detail.
- Most companies follow the same assessment process for planning and allocation decisions, with M&A activity often managed separately.
- Business cases largely focus on meeting financial hurdle rates, although strategic, non-financial value drivers such as customer experience and technology service levels are increasingly considered.
- Few telecom companies surveyed include funding sources in their business cases. This is in contrast to other capital-intensive industries, where this practice is common, due to the size of the investment and requirement to access debt or equity capital markets.
- Capital is prioritized for investments offering the best risk-adjusted returns and strategic fit. However, there appears to be less rigor in the assessment of renewal and 'business-as–usual' investment cases – and in the subsequent allocation of funds. By evaluating these allocations more thoroughly, businesses could delay or cancel non-critical investment and apply capital resources to higher valued opportunities.
- Most telecom businesses surveyed do not build contingencies into their capital budgets.
- Regular performance reports are prepared, but reporting systems are largely manual, often relying on spreadsheets, resulting in delays and a heightened risk of errors.
- Many respondents do not initiate independent, post-implementation reviews of major projects. Lessons learned are not routinely shared across the group.
- Opportunities for 'recycling' capital invested in non-strategic businesses and assets tend to be assessed annually as part of corporate planning. Projects are assessed more frequently to confirm expected benefits and commercial justification of investments.

Global telecom companies are investing heavily to compete with peers, meet consumer expectations on network coverage and quality, and satisfy a voracious appetite for new products and services. Given this large outlay, disciplined capital management is critical to maximize shareholder value.

Analysis of respondents' financial performance[2] highlights the competitive nature of the sector, with two-thirds reporting higher capital investment, despite a majority experiencing flat or declining revenues.

The 2014 capital expenditure/revenue ratio for these companies ranges between: 14.8 percent and 26.5 percent, meaning that up to a quarter of annual revenues are earmarked for reinvestment into the infrastructure and business, to remain competitive and responsive to a changing technological and customer-focused marketplace.

[2] Analysis covers 3 years of publicly available financial information for 12 out of 20 telecom respondents.

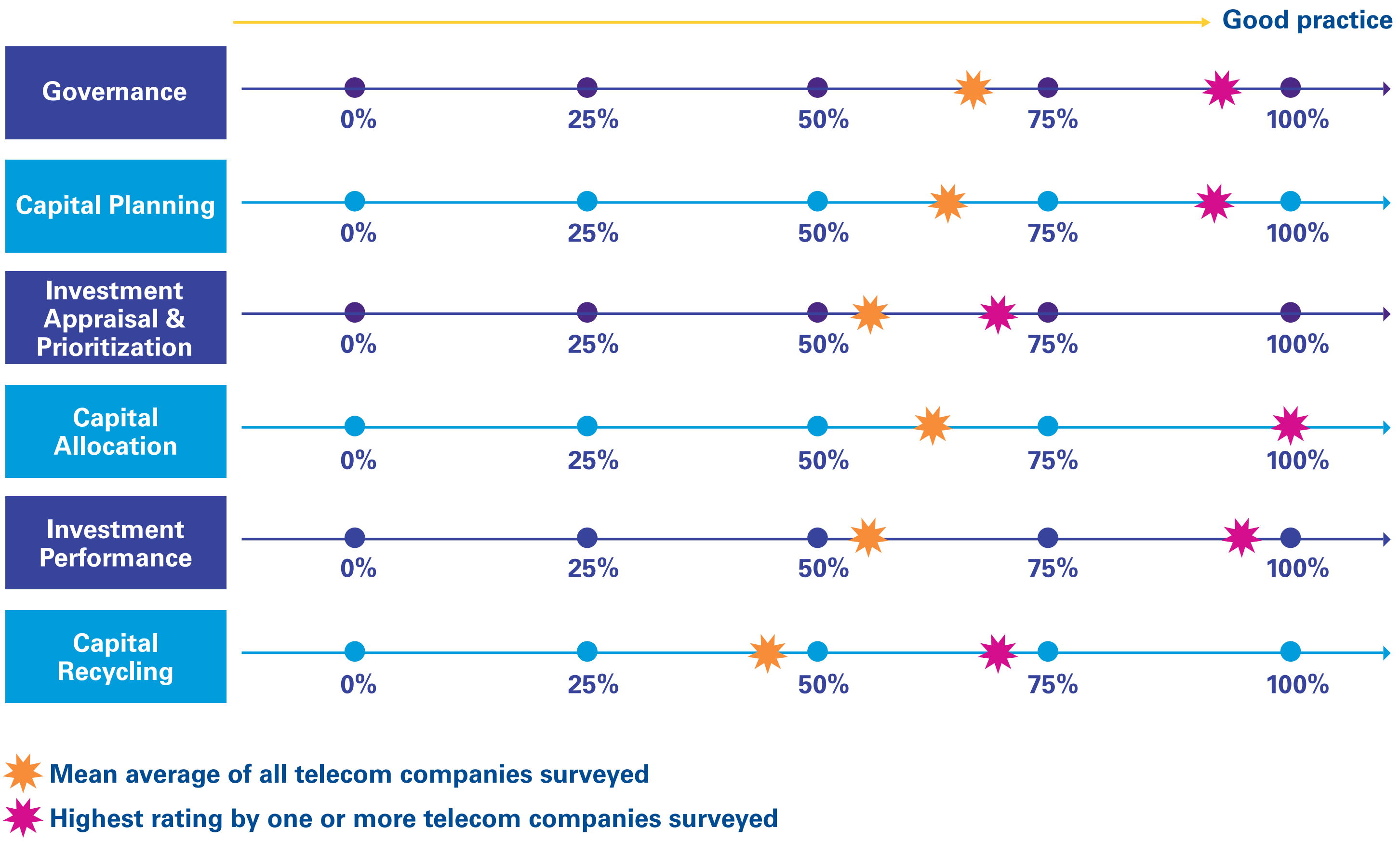
This survey identifies leading practices and emerging trends across all aspects of the capital management process, highlighting differences in approach, and areas for improvement where telecom operators can refine systems and processes to achieve more with their limited capital.

The table below summarizes the survey results, charting respondents' practices across the capital management cycle (explained in the next chapter). By benchmarking the survey average against good practice, it reveals areas for improvement; most notably in investment appraisal and performance management, both of which showed a large variation in responses.

If telecom companies wish to close this gap, they need to continually challenge management decision-making, to ensure that lessons learnt from past investments are embedded in a robust approval process, able to withstand tough questions from shareholders.

The Conclusion section within each chapter of the report provides a detailed summary of survey findings including good practices and emerging trends.

Figure 1: Relative capital management performance of respondents to KPMG's 2015 Telecom Survey



Source: 2015 KPMG Capital Management Survey

Capital management in practice

About the survey

To find out more about how the industry is managing its capital expenditure, in mid-2015 KPMG surveyed 20 of the world's leading telecom operators from Europe, Middle East and Africa, Asia Pacific and Americas, the largest of which have annual revenues of over US$100 billion.

Respondents answered a range of questions on how they plan their capital programs, allocate (and recycle) capital and evaluate investment performance. The survey includes five organizations from other sectors – one from mining, and two each from energy and construction – to compare approaches, establish common ground and consider leading practice that could be transferred across industries.

These findings are assessed against current perceptions of leading practice in capital management, and are augmented by the informed views of KPMG sector specialists and academic experts.

1 Governance framework: beyond the Boardroom

Companies need a strategic framework to plan and allocate finite capital resources, critically evaluate and prioritize competing opportunities, determine appropriate funding sources, and monitor and track performance against underlying business cases. This approach should help the organization deliver business goals, adapt to changing market conditions and create shareholder value.

The framework documents and binds all these elements together, to ensure organizations define accountability, objectives, and boundaries. These principles guide management decision-making, establish discipline in capital management practice, and monitor behavior. With such a robust process in place, telecom companies improve their prospects of meeting investment objectives.

2 Capital planning: setting the priorities

An effective plan identifies and prioritizes key projects, linking investment strategies with technology cycles, assessing funding needs and sources of capital, and establishing appropriate financial and market objectives and measurements (such as market share, customer satisfaction, and return on investment (ROI)). The plan should include a thorough analysis of the current and future business environment, weigh up maintenance versus new build, and identify partnering opportunities.

A plan will include higher-risk investments that drive differentiation and growth, but must be balanced, and sit within the company's overall risk appetite.

3 Investment appraisal: balancing risks, rewards and obligations

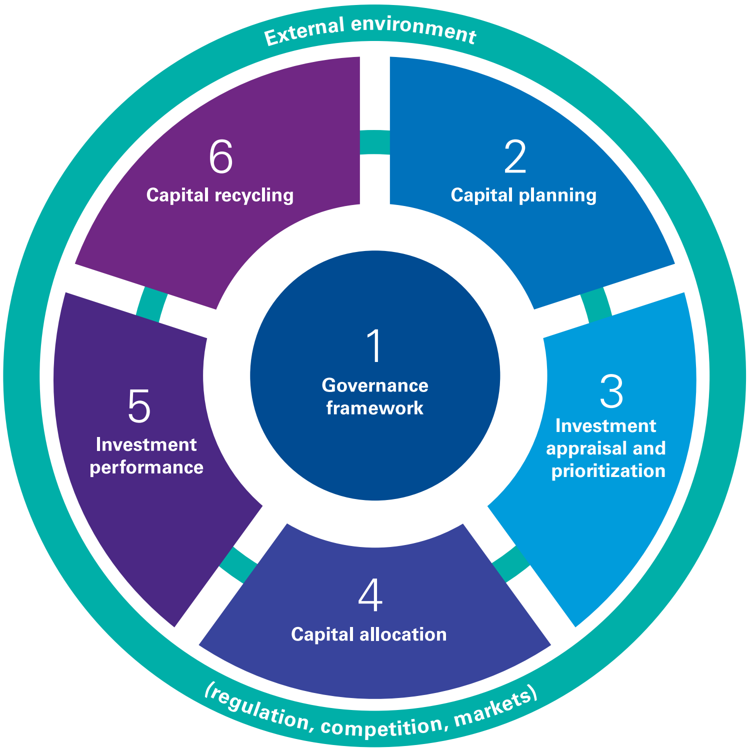
In evaluating the attractiveness of a potential investment, companies typically consider traditional financial measures such as internal rate of return (IRR), net present value (NPV), payback or discounted cash flow (DCF).

These approaches, although useful, may not always satisfy the demands of shareholders seeking more exacting appraisals. Companies can, therefore, also consider additional metrics such as cash value-added (CVA), which looks at the long-term cash generating capacity of the investment.

Capital management cycle

This survey examined practices in six main areas of the capital management life cycle illustrated in Figure 2.

Figure 2: Capital Management Cycle – A Conceptual Framework



4 Capital allocation: competing for internal capital

When determining the benefits of different project options, companies have to compare the merits of asset build (replacement) decisions against maintenance of existing assets, retiring old technology versus acquiring new (and possibly costly) technology, and whether to form alliances or acquire other players.

New investments typically take longer to generate substantial cash flows, whereas incremental maintenance creates a faster return. This adds further complexity to the investment decision, as companies have to balance the need to offer competitive, cutting edge technology with the day-to-day operational need to maintain strong working capital.

5 Investment performance: visibility through analysis and reporting

This activity utilizes the metrics (milestones) agreed during the appraisal phase to assess investment performance of projects and portfolios, leading to decisions on whether to continue, scale back or close down altogether.

Post-implementation reviews enable continuous improvements to be made to the end-to-end capital management framework.

6 Recycling capital: a lesson in active management

Capital recycling involves divesting non-strategic businesses and infrastructure assets, and setting aside part or all the proceeds for alternative projects aligned to the corporate strategy. Alternatively, surplus proceeds can be returned to the capital providers until growth opportunities are identified.

The key management challenges are to identify non-strategic or under-performing assets or investments, and to have the discipline to make hard decisions at the right time, to either improve performance or release capital to fund new investments.

1

Governance framework: beyond the Boardroom

Common practices

- **A standardized and documented capital management framework**
- **Board-level or executive committee oversight of the capital plan**
- **Executive remuneration not directly linked to capital management activities**

Capital management is a core capability in the sector, reflected in strong governance practices. Ninety-five percent of survey respondents say their planning and investment decisions are governed by a documented policy framework.

Setting policy parameters

Respondents' policy documents cover most elements of the capital management framework in Figure 2, with some variations relating to active management disciplines, planning timeframes, prioritization and evaluation criteria.

In particular:

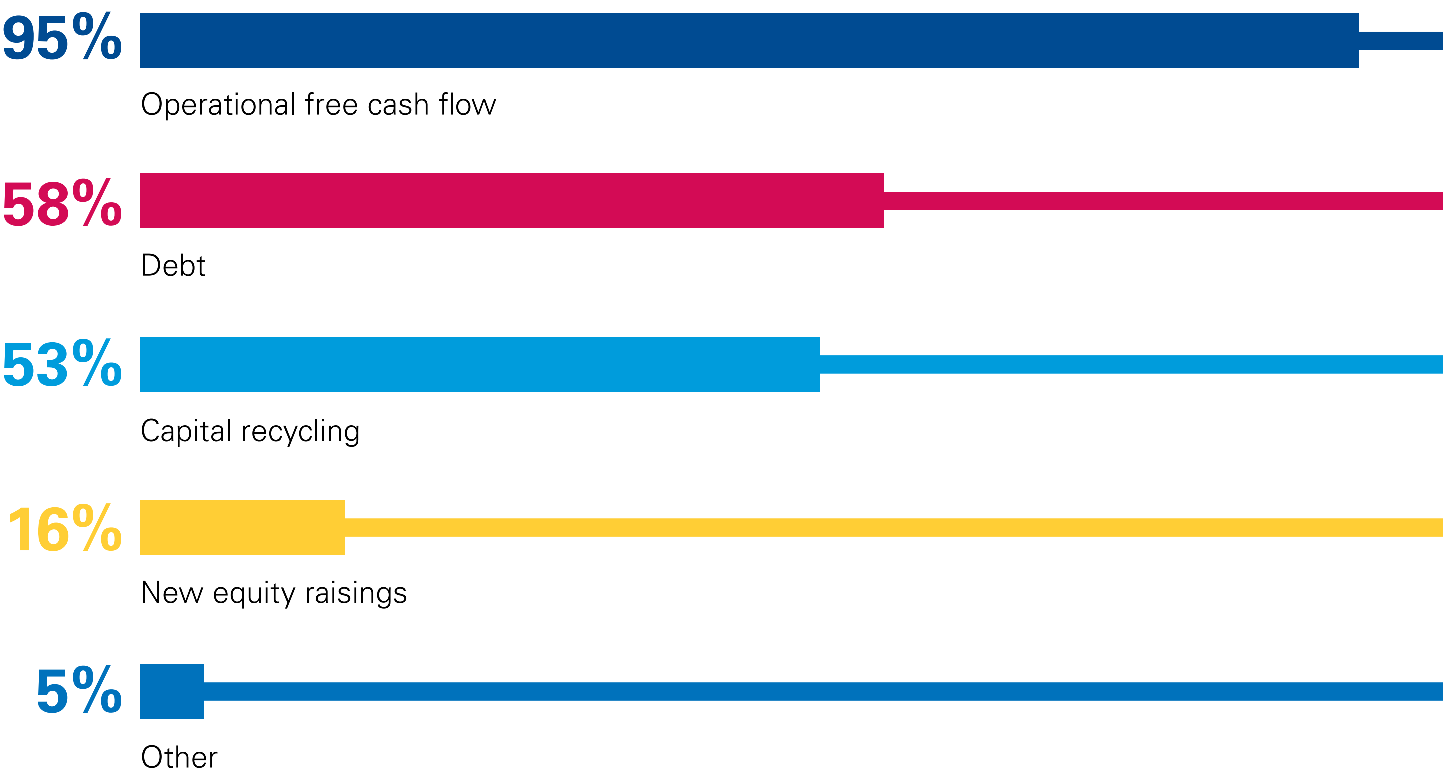
- Four out of five respondents have established either a Board level or a senior executive capital committee to oversee the investment and management process. The rationale is that a multi-disciplinary capital committee is best equipped to review and stress test the capital plan and associated business cases. This not only brings greater rigor, but also puts investment decisions in a wider organizational context, to ensure they fit strategic goals.
- Although all respondents indicate their frameworks covered both growth and renewal capital expenditures, only half contemplate mergers and acquisitions in their planning processes. However, 47 percent have accelerated processes for unplanned yet strategically aligned investment decisions.
- Sixty-seven percent of survey respondents' policies explicitly cover performance measurement and reporting requirements, to provide visibility over projects during the delivery phase. A similar proportion require post-investment reviews (PIR) to embed learnings and better practices into the capital management process.
- Free cash flow is by far the single most important source of financing for capital expenditure. Only 58 percent contemplate the use of debt, while 53 percent target capital recycling.

Interestingly, only 42 percent of respondents have capital plans beyond 3 years, with nearly two out of three allocating capital on an annual basis.

"The Company has established a Capital Committee comprised of senior executives, ultimately headed by the CEO and chaired by the CFO."

—Survey respondent

Figure 3: Source of finance for the capital plan includes:



Source: 2015 KPMG Capital Management Survey

> “‘Head office tends to set the capital envelope based on what the group can afford after debt financing, dividends and other known major cash outlays. Business units then prepare a bottom-up plan based on Head Office guidelines.”
>
> —Johan Smith, Partner, KPMG in South Africa

Objectives and priorities

Organizations participating in the survey are acutely aware of the intense competition in their market place, and dependence on the capital markets for investment capital.

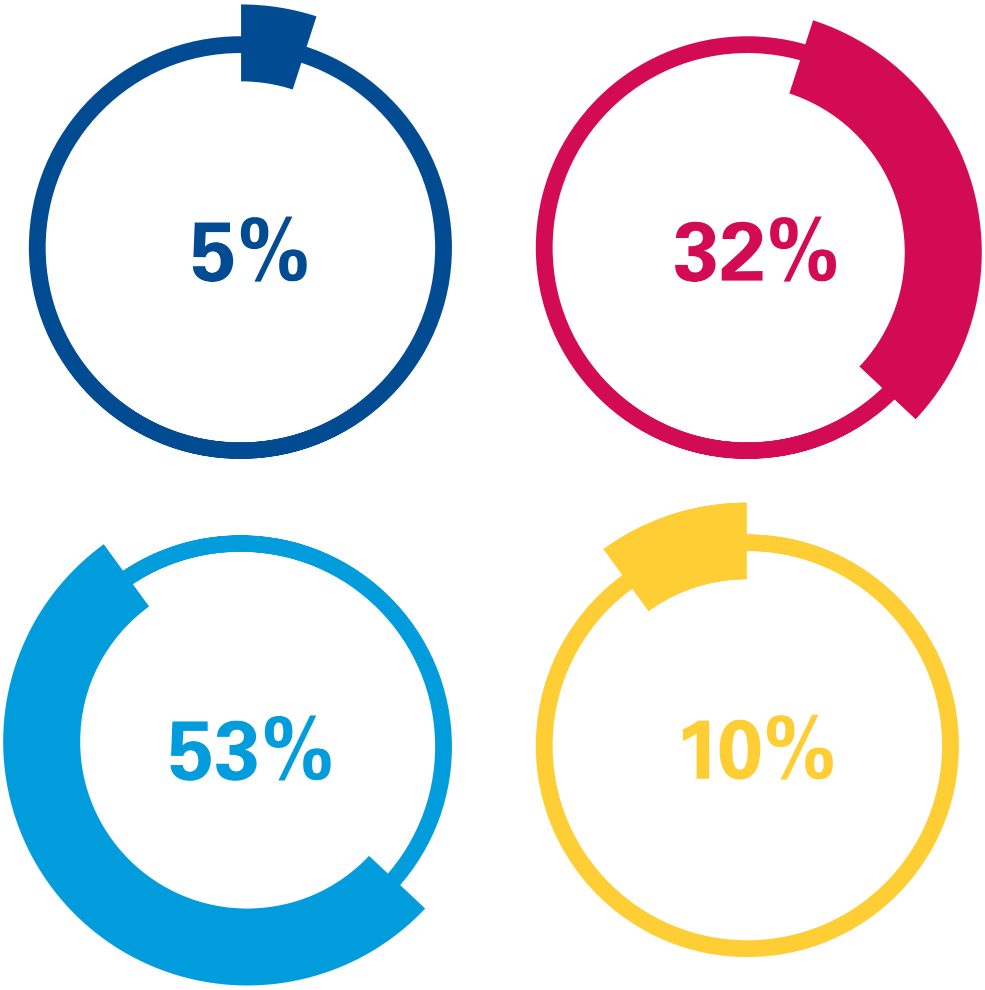
Not surprisingly, the main objectives for capital management are to maintain or improve the organization’s market position, and to create shareholder value whilst maintaining satisfactory credit metrics.

Executive remuneration

Only a third of organizations surveyed directly or indirectly link executive remuneration to capital management objectives. Most offer rewards based on overall group level results; this is, in part, due to the difficulty in assessing benefits of specific projects in isolation, and, especially, the challenge of objectively measuring performance relating to renewal expenditures.

Our findings suggest an opportunity to better align short and long-term remuneration incentives with capital performance. The key indicators are the ability to bring projects and/or portfolios in on plan and budget (short-term incentives), and the achievement of longer-term business case benefits and financial returns (long-term incentives).

Figure 4: Is the remuneration framework aligned to the realization of expected business benefits (metrics) and value-added for shareholders?



- Yes – direct link between realized benefits on projects and the incentives paid to those accountable
- Yes – indirect link between capital management hurdle rates and the incentives paid to those accountable
- No – performance considered in individual performance assessments
- Other

Source: 2015 KPMG Capital Management Survey

Leading practices

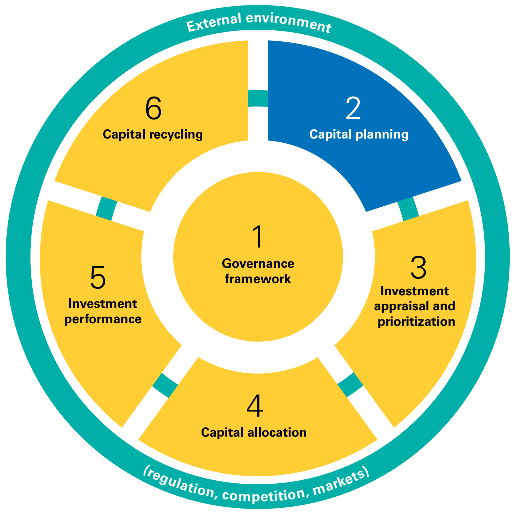
- 95% have a formal Capital Management Policy
- 84% have a Board or executive committee to oversee capital management activities
- All respondents have a standardized and documented capital planning framework
- Planning frameworks apply to defined investment categories covering both growth and maintenance expenditure categories
- 37% of respondents align capital investment metrics with business unit and executive performance scorecards, including incentives for responsible executives

2

Capital planning – setting the priorities

Common practices

- Planning is typically 'owned' by Chief Financial Officer (CFO)
- Most companies have documented procedures with supporting capital planning tools (e.g. capital planning manual)
- Planning processes exceed 3 months but typically limited to annual expenditures
- Many organizations do not explicitly contemplate 'investment agility' through the use of provisions or reserved allocations in the capital plan
- Prior year capital approvals tend to be recalibrated as part of the annual capital planning process



According to the survey, telecom companies prioritize capital for those projects and programs with the highest long-term strategic value to the organization. The main issues driving the capital plan are the pace of technological change, competitors' actions to gain market share, and the need to enter new markets to satisfy changing customer needs, or to grow by diversifying into adjacent sectors.

Capital investment in telecom is influenced by the following imperatives:

1. **Creating network differentiation:** Data usage has risen at a breathtaking rate, due largely to the increasing use of smart mobile devices. Telecoms operators must respond by enhancing their existing networks, whilst investing in new 4G, long-term evolution (LTE) and fiber infrastructure.

2. **Becoming true information and communications technology (ICT) players:** In more mature markets, telecom providers are striving to offer integrated communications services, including IT consulting and security services, to corporate clients, along with bundled triple- or quad-play services to consumers. This requires investment not only in newer technologies, but also in the underlying operating and business support systems (OSS/BSS).

3. **Enhancing the customer experience:** Telecom companies need to invest significantly in advanced customer analysis and relationship management (CRM) software and other tools, to enable faster, more contextual, and more targeted customer interactions.

4. **Monetizing data:** Despite the data usage boom, average revenue per user is either stagnant or falling. Although telecom networks are increasingly being used to deliver content via the internet, primarily through smart devices, this content is being monetized by content developers, delivery providers and 'over-the-top' (OTT) players such as HBO, YouTube, Netflix, Facebook and Whatsapp. Many telecom companies are acting simply as delivery pipes, and not benefiting significantly from this huge surge in content demand.

5. **Consolidating and diversifying:** Mergers and acquisitions (M&A) are an ongoing imperative in order to broaden the revenue base and maintain shareholder returns. Telecom operators need to build market share, gain scale economies, and diversify into adjacent content and other markets such as entertainment, healthcare and public services. To date, differing regulations have made consolidation more achievable in markets such as the US and UK, but less so in many European countries.

6. **Competing in spectrum auctions:** Established mobile players need a substantial war chest to participate in spectrum auctions and acquire telecommunications licenses, which can in some instances, be for periods of up to 20 years.

7. **Using resources more efficiently:** Practices such as sharing of sites, towers and networks, renting or buying data centers (instead of building from scratch), and outsourcing back-office and certain customer services, can all help to significantly reduce capital needs and spread investment risk. Network sharing and alliances have also enabled operators to increase rollout speed, provide broader coverage, differentiate services and introduce new content and applications.

Building the plan

Seventy-three percent of respondents state that responsibility for capital planning rests mainly with the CFO and Finance, although, in a few instances, capital planning is carried out by the Chief Technology Officer (CTO).

For many, M&A planning occurs outside of the capital plan and is performed by the Chief Strategy Officer (CSO), reporting either to the Chief Executive Officer (CEO) or CFO.

Our findings indicate that:

- Companies have documented policies and procedures, with Head Office issuing instructions and templates to standardize processes and information flow. Business units and divisional Managing Directors (MDs) prepare capital submissions for aggregation, appraisal and allocation by Head Office refer to figure 5.
- Seventy-eight percent of respondents take more than 3 months to prepare and approve their capital plans, and a few (6 percent) take more than 6 months. Given the short-term timescales of the actual capital plans, there is scope to improve the planning process and free up management time and cost. This slow preparation may well be due to the continued use of spreadsheets to plan, manage, monitor and report on capital management.
- Surprisingly, less than half (47 percent) of the telecom respondents build in a provision for 'investment agility' into their capital plans to cover for unplanned expenditures. However, as capital expenditure is largely financed from free cash flow, debt and equity financing is reserved to cover major investments and acquisitions.
- Fifty-two percent focus on funding strategic projects with the highest long-term returns, taking into account the timing of expected cash flows. When capital needs to be rationed, some companies remove 'non-negotiable' capital before restricting capital and cash in the plan, by staggering the timing of certain projects or finding alternate funding such as leasing.

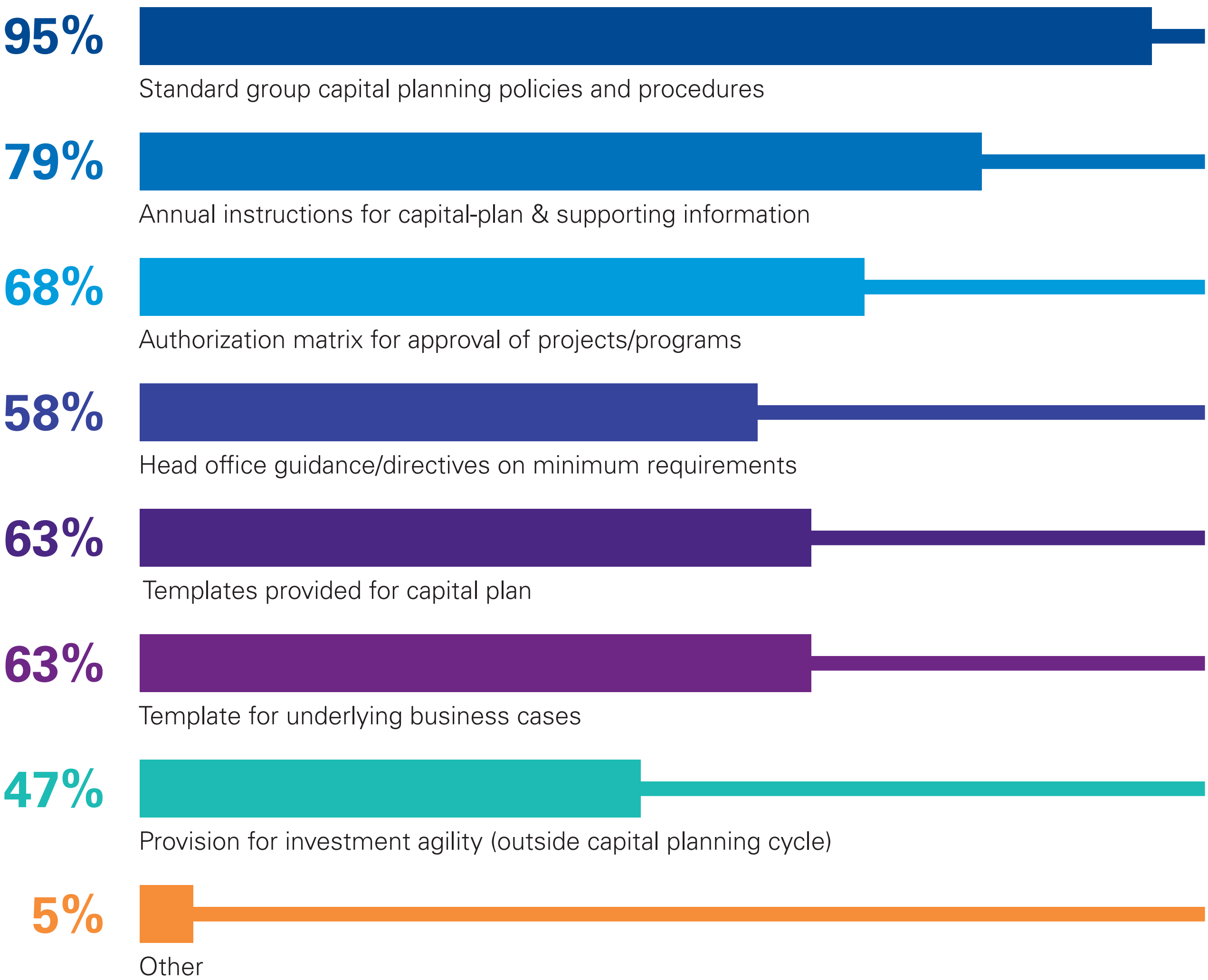
"If they're serious about speeding up the planning process, telecom companies need to reduce the number of line items in the plan, focus on a handful of key indicators and ignore the rest."

—Aswath Damodaran, Professor of Finance, Stern School of Business, New York University

"Our company implemented a small group governance team that makes quick decisions and operates in an agile framework."

—Survey respondent

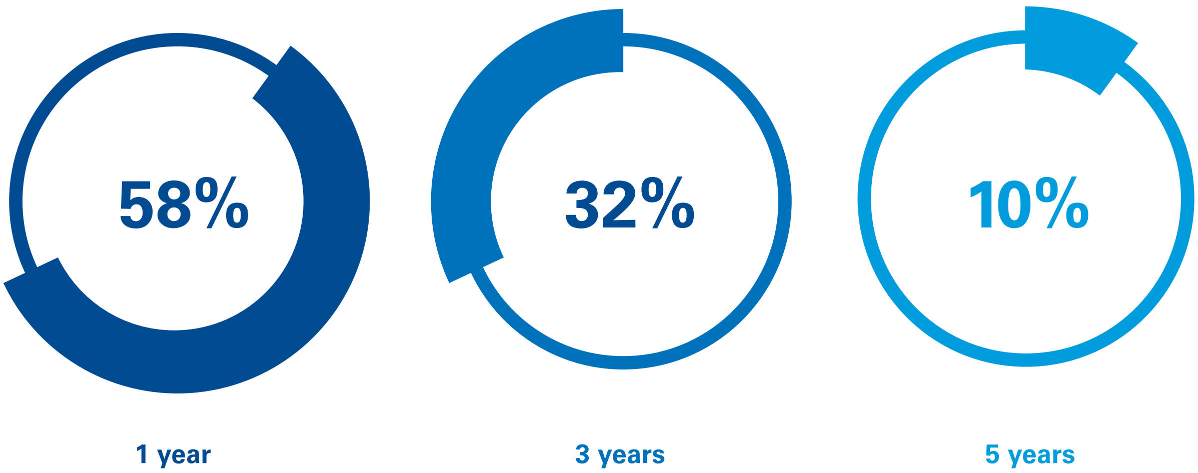
Figure 5: Key components of the capital planning framework



Source: 2015 KPMG Capital Management Survey

Respondents could select multiple answers

Figure 6: What period is covered by the capital plan?



Source: 2015 KPMG Capital Management Survey

Short-term capital planning

Planning cycles in telecom appear to be short, reflecting the fast pace of technological development. Fifty-eight percent of respondents say their capital management plan coves a timeframe of just 1 year, and thirty-two percent have 3-year plans.

Executives from other asset-intensive sectors all cite extended timeframes of up to 10 years.

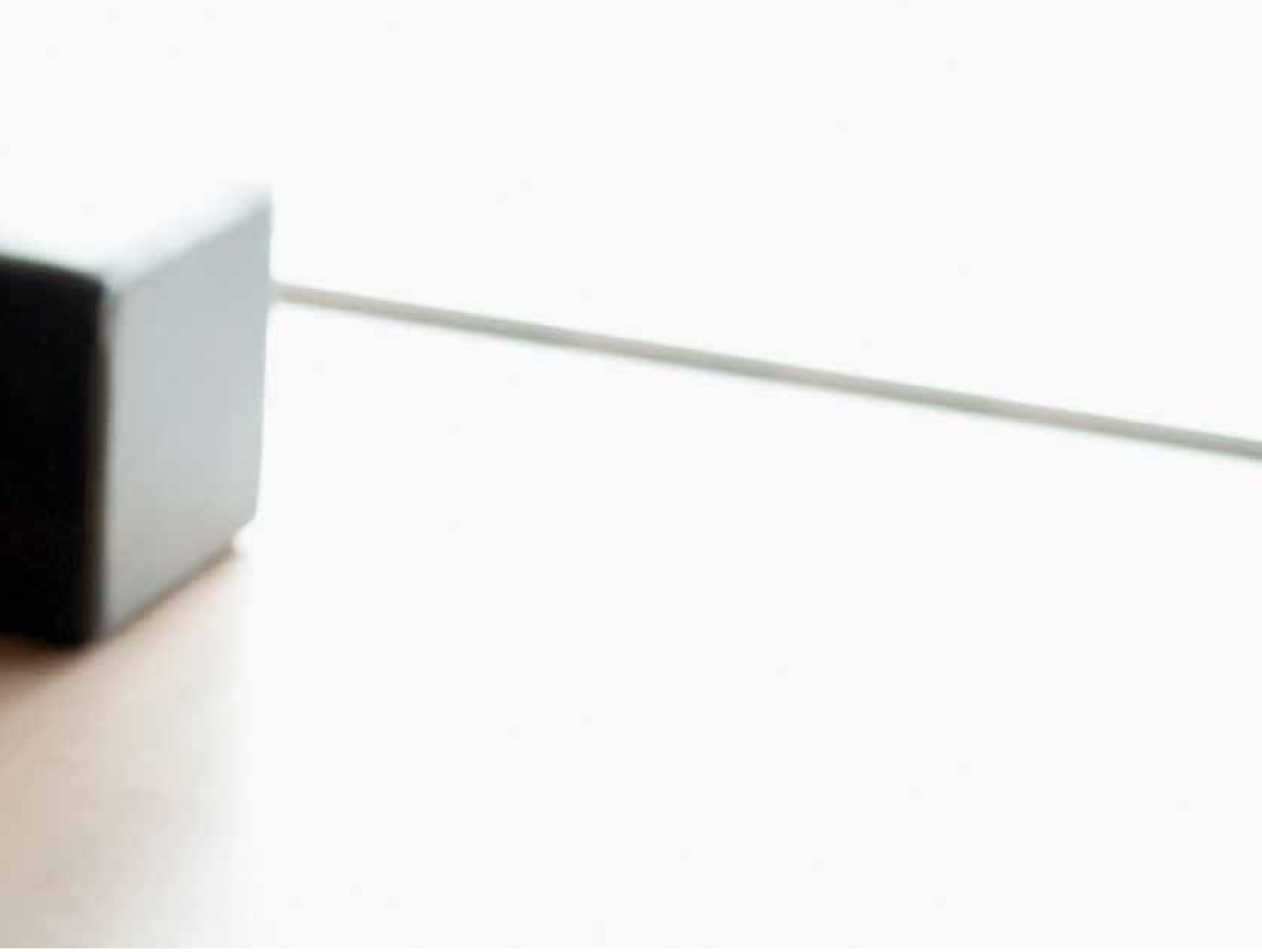
Many companies, however, prepare rolling plans with 3-, 5- or 10-year overlays to the annual plan, which helps them assess potential longer-term challenges, opportunities and capital requirements.

> "Capex is initially prepared in line with the business plan (5-year view) with capex allocated for every year. The allocated funds are reviewed on an annual basis, even for projects which are scheduled to run across multiple years."
>
> —Survey respondent

Five elements of a capital plan

- **Establish financial and non-financial goals and ground rules:** these should form the basis of a policy framework and be reviewed and adjusted periodically
- **Estimate fiscal capacity:** create a multi-year financial picture with assumptions about future changes in operating expenditure, revenues, reserves and debt commitments
- **Prepare information on proposed projects:** identify and select potential projects and schedule their investment over the planning period
- **Examine and revise fiscal impacts:** review the plan and its impacts, and make appropriate adjustments to financials and schedule of projects
- **Implement the annual capital budget:** this includes authorization within the annual budget, along with actions to acquire finances. Prepare for other capital projects for upcoming years, including engineering estimates and site preparation

Source: *How To Develop a Multi-Year Capital Plan; Planning Saves Time and Money,* Mike Hattery and Duane Wilcox, Cornell University, Water Sense, Summer 1999.



Leading practices

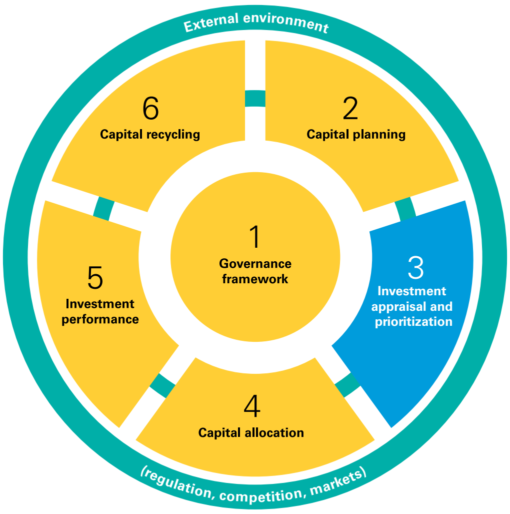
- 73% assign responsibility for capital planning to the CFO
- 95% have standardized, group-wide capital planning policies and procedures
- 90% of telecom companies prepare short-term capital plans (less than 3 years), with 79% preparing rolling plans
- 22% report that investment planning takes less than 3 months to complete
- 90% of plans are built using a top-down or bottom-up approach
- 74% consolidate projects into strategic programs for capital planning

3

Investment appraisal and prioritization: balancing risks, returns and obligations

Common practices

- Business cases are usually prepared using a standard template
- Pre-defined financial hurdles prioritize top-line growth and investment payback
- Key non-financial hurdles are 'impact on customer' and 'known technology change'
- A majority provide a general allocation of capital to fund renewal or 'business-as-usual' investments – many without business cases



The survey reveals that many telecom business units prepare a business unit capital plan supported by business case submissions, in accordance with Head Office guidance. Invariably the sum of the submissions is greater than the available capital, sometimes called the 'capital envelope.' In the majority of cases (90 percent), Head Office then determines which business cases need to be revised, deferred or cancelled.

Rigorous assessment of capital business cases

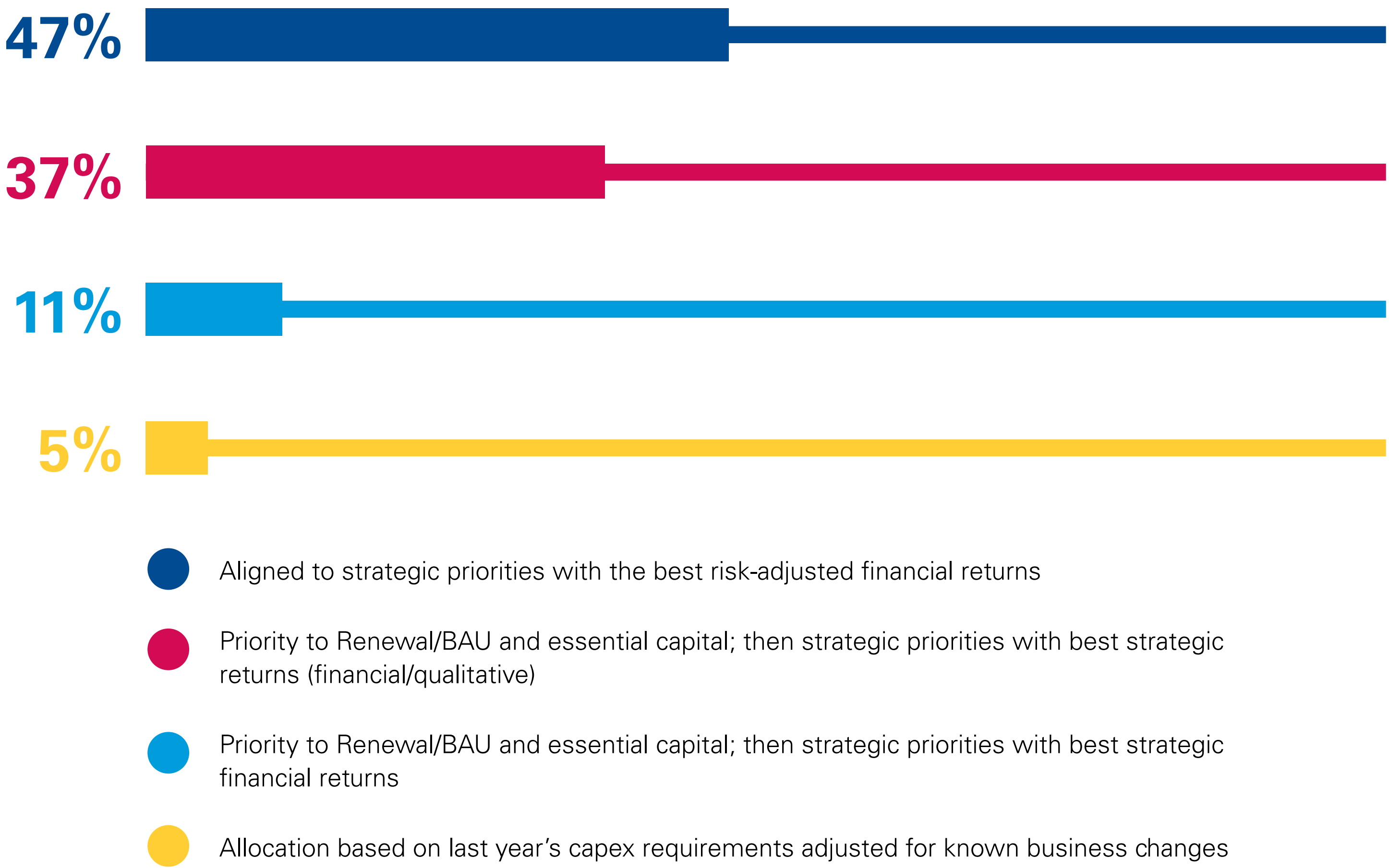
Sixty-three percent of telecom companies polled follow the same assessment process for all investment types for capital planning and allocation purposes, except for M&A, which is often managed outside the standard capital management process.

Respondents note that business cases submitted by Head Office and/or business units share some common characteristics:

- Eighty-four percent of business cases are presented in a standard template and must meet pre-defined financial hurdles. Differential hurdle rates are generally applied to investment cases based on type of investment, timing of cash flows and risk. Most financials include the expected impact of the investment in terms of growth and increased revenue (89 percent) and synergies on ongoing operating expenditure (68 percent); this means that 32 percent focus on the capex cost implications, and not the total lifecycle cost implications, of the investment. The tax implications of the business case should also be considered.
- When assessing expected returns from each business case, the key financial hurdle rates are top-line growth and payback period followed by NPV, IRR and ROI. The main non-financial hurdles are the impact on the customer and known technology change.
- Sixty-one percent of companies provide sensitivity analysis on core assumptions underpinning the base case cash flows; or at least estimate the impact of downside risk scenarios and potential game changers.
- Only 30 percent use value-add-based measures (such as expected economic value-add or cash value-add) for assessment purposes. Such metrics focus on the value created in excess of the required shareholder value or cash return (which takes into account the underlying project risks and opportunities).
- Surprisingly, 68 percent of telecom business cases do not include contingencies for unexpected capital needs at the project or program level. In contrast, four out of the five companies from other sectors build contingency into their capital plans.

> "We're proud of the work done to develop and roll out a standard project evaluation tool across the group – time is not now spent on trying to understand numbers, but on key outcomes and delivery of various key metrics (like cash flow)"
>
> —Survey respondent

Figure 7: How does Head Office test the business case and underlying assumptions, to assess the quality of the underlying information, and likelihood of realizing the expected business benefits?



Source: 2015 KPMG Capital Management Survey

Funding options

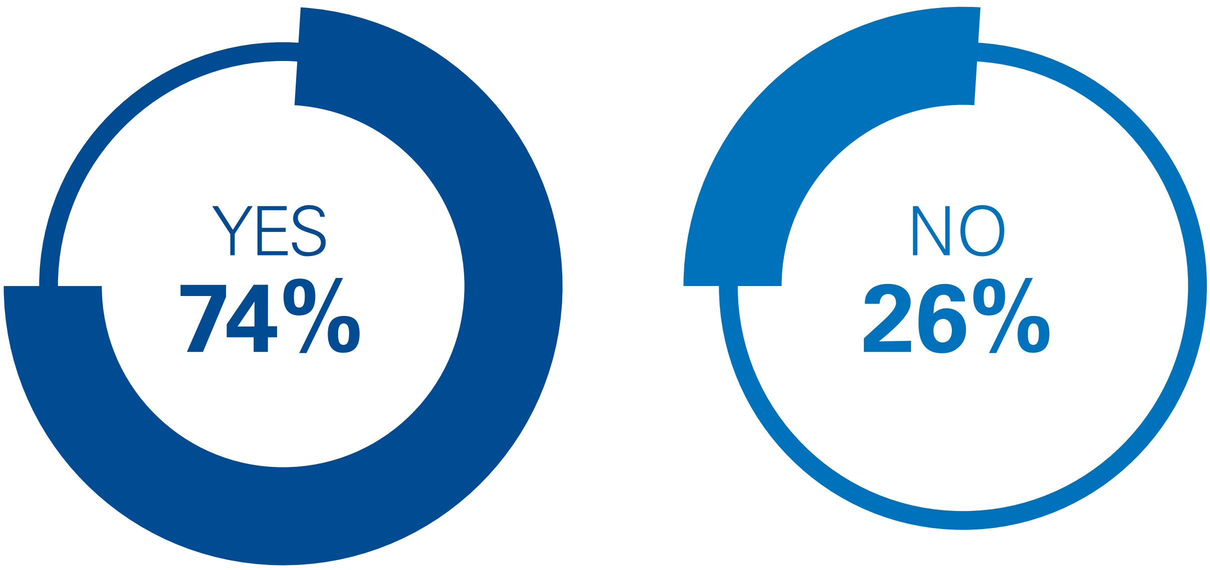
Very few telecom companies (17 percent) surveyed include the proposed source of funding for each project/program in the business case for review (whereas all the other capital-intensive firms did so). This practice ensures that the business unit and/or project team manages not only project completion, but also the required return on investment. In certain instances, internal charging is included for the imputed cost of capital (taking into account imputed equity, project risk etc.); an approach known as the 'banking model.'

> "We introduced a 'bank-style' robust treasury function focused on both asset and liability side of capital management - pushing responsibility for meeting hurdles and gateways to projects."
>
> —Survey respondent

Our research shows that some telecom companies and other capital-intensive businesses adopt a 'stage gate' approach to project management and funding; this defines various stages with key milestones within the business case. Funds are only released for the next stage once the required milestones for the current stage have been achieved, and the project business case benefits confirmed by an independent group (often Internal Audit).

One participating organization's capital plan distinguishes between 'committed capital' (on approved business cases that are underway or about to start); and 'uncommitted capital,' (approved projects expected to begin in the future). The uncommitted capital provides added flexibility to take advantage of one-off opportunities.

Figure 8: Does the organization provide a general allocation of capital to fund renewal or 'business-as–usual' investments on existing network infrastructure and IT?



Source: 2015 KPMG Capital Management Survey

'Sweat the assets'

Most respondent companies (74 percent) provide for a general allocation of capital to fund renewal and 'business-as-usual' investments on existing network infrastructure and systems – many without the need for a business case. Here is what a selection of telecom executives reported:

> " For the 'business-as-usual' investments, there is not a strong process to stress-test the allocation requests (business cases)."

> " These ('business-as-usual' /renewal) investments are approved during the budgeting process for the entire year. No specific business cases are required."

> " No subject matter experts are used to challenge the technical and commercial aspects of infrastructure and IT project business cases."

By evaluating 'business-as-usual' and renewal allocations more rigorously, operators could delay or cancel non-critical investment, and so maximize capital available for more strategic projects. Some of the respondents only provide allocations after stress-testing 'business-as-usual'/renewal investment requests:

> " 'Business-as-usual' /asset renewal are assessed based on the risk to the operations or NPV of the project."

> " Our Capital Committee reviews/challenges the renewal of 'business-as-usual' network/IT investments, by assessing the financial and qualitative benefits to the organization and its customers."

> " We consider the investment urgency and the risks associated with a "do nothing" scenario, and assess whether the proposal includes a thorough analysis of all the options to be considered."

Leading practices

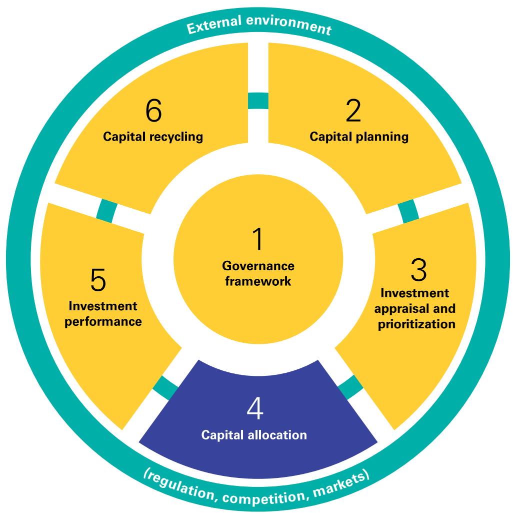
- 63% say all investment types follow a common assessment and evaluation process
- In 26% of cases, renewal and 'business-as-usual' investment follow a standard robust assessment process or are subject to an equivalent level of challenge
- 42% state that business cases include prescribed financial and non-financial hurdles (customer, competition/technological change, network performance)
- 61% of respondent companies use business cases that evaluate impact of investment on profit/cash flow, and include sensitivity analyses
- 32% build contingencies into capital projects/programs to cover unplanned additional expenditure

4

Capital allocation: competing for internal capital

Common practices

- **Almost half of respondents allocate capital based on financial returns, after accounting for risk and synergies**
- **Head Office is responsible for capital rationing, or for decisions to delay/cancel strategic investments**



According to the survey responses, Head Office usually sets the 'capital envelope,' by issuing instructions and guidance to build the capital plan. Often, the sum of business unit requests exceeds this envelope, resulting in the need to cull and/or defer projects, and ration capital. Keen internal competition for funds, and resultant negotiations, can prolong the finalization of the capital plan.

Maximizing returns

For 47 percent of respondents, capital is prioritized and allocated based on the expected financial returns of each investment opportunity, after accounting for risks and synergies. However, 37 percent select essential capital first, and then prioritize based on alignment of the capital requests to strategic priorities, which deliver positive risk-adjusted financial returns, as well as other strategically important qualitative returns (such as security, brand improvement, license to operate, customer satisfaction and net promoter score).

Figure 8: Which statement best describes the alignment of your capital plan to the overall corporate strategy?

- Aligned to strategic priorities with the best risk-adjusted financial returns
- Priority to Renewal/BAU and essential capital; then strategic priorities with best strategic returns (financial/qualitative)
- Priority to Renewal/BAU and essential capital; then strategic priorities with best strategic financial returns
- Allocation based on last year's capex requirements adjusted for known business changes

Source: 2015 KPMG Capital Management Survey

Rationing capital

Sixty-nine percent of responding telecom companies say they defer or change the requirements of proposed strategic priority investments and programs, if there is insufficient capital to fund the investment pipeline. The remaining 31 percent focus on the 'business-as-usual'/renewal spend.

In both cases, the decision to prioritize, defer or change requirements is made by Head Office.

Getting the most out of invested capital

Capital investments can be placed into three broad categories:

- **'Strategic expansion' investments** that create new cash flows and new value, such as LTE infrastructure, cloud, or cable modems that deliver broadband; or strategic acquisitions
- **'Major strategic replacement' investments** that maintain and/or defend existing levels of cash flow, by retaining existing sales and customers, or introducing costs savings. These might include asymmetric digital subscriber line (ADSL) broadband, expanding mobile coverage, and simplifying architecture
- **'Maintenance' investments** that defend and sustain the intended life and value of 'expansion' and 'replacement' investments, to ensure that day-to-day operations run smoothly; for example, fixing basic public switched telephone network (PSTN).

Certain investments in new technology do not add, but merely preserve, value; something that should be reflected in the financial planning. It is also common for 'replacement' investments to be (wrongly) perceived as 'expansion' investments. All companies will need to segregate and balance these different types of investment, and accurately evaluate their benefits in terms of value defended and value created.

Cash flows can vary between differing types of investments. With the required case for 'business-as-usual' projects usually less tight, companies need to ensure that they allocate sufficient capital to expansion initiatives (which deliver less immediate returns), while achieving strong cash flows from shorter-term, maintenance investments. Larger projects will tend to carry more risk as well as offer greater rewards, so this risk/reward rating should be reflected in the overall capital plan and cost of capital in the initial business case.

Case study: Liberty Global/Virgin Media

Liberty Global expanded significantly in 2013-14 across the European telecom and cable markets, in the process segregating its investments:

- **Strategic expansion investments:** these included building content strength in Europe, both in terms of production and distribution, including bids for/collaboration with various content providers
- **Major strategic replacement investments:** high penetration rates allowed the firm to spread the cost of investing in its networks, service offerings, and marketing across more customers than its rivals. Liberty invested efficiently in networks, rolling out the latest technology in most countries it serves, enabling it to offer services many rivals could not match.

Liberty was able to manage strategic growth plays, while investing in upgrading and/or maintaining the network, thereby retaining existing subscribers until they can be migrated to the new infrastructure, if appropriate.

(Source: Morningstar Credit Research report, May 2013, *Barclays Equity Research report, August 2014, accessed via ThomsonOne.)*

" Given the pace of change and market movements, many telecom companies take too long to finalize the capital plan, assess investment cases and allocate capital . The more work that can be completed up front to set the capital envelope, strategic priorities, central assumptions and consistent (automated) data capture and presentation, the more efficient the process from plan to allocation. Companies appear to have too many rounds of review before finalization."

—Nick Ridehalgh, Partner,
KPMG in Australia

Leading practices

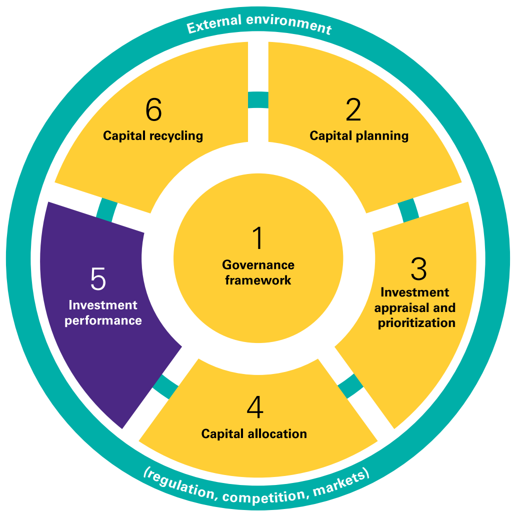
- **Company allocations balance growth versus maintenance and 'business-as-usual' investment decisions, to manage the organization's business risks, cash flow and corporate credit metrics**
- **50% prioritize those strategic investments with the best financial and other strategically important qualitative returns (improving security, brand, license, customer satisfaction, and net promoter score)**
- **Head Office makes decisions to re-shape the investment portfolio, to stay within funding constraints. This may include delaying, phasing or other actions to manage the capital spend**

5

Investment performance: visibility through analysis and reporting

Common practices

- **Most respondents prepare regular performance reports for the Board and all levels of management, based on project/ portfolio performance against business case**
- **Organizations rarely align benefits achieved with the executive performance assessments**
- **Reporting of capital management activities is dependent on spreadsheets**
- **Few respondents conduct independent, post-implementation reviews on major capital projects, to deliver efficiency opportunities and drive continuous improvement**



What gets 'measured gets managed'

– Most telecom companies in the survey (68 percent) prepare regular reports at all levels of the organization (group, region, business unit and project), detailing progress to date against plan, budget and business case benefits. They also inform management of issues arising on each project, and proposed remediation actions.

- The remainder (32 percent) only produce exception reports for group and regional directors and executives, covering projects that are not on track to deliver business case benefits. Detailed reports are managed at the business unit and program/project level.
- Fifty-three percent of participating telecom organizations perform standard global reporting on capital programs/projects, with a focus on business case spend, timelines and returns/benefits.
- As noted earlier, a number of companies (especially in the construction sector) review, or even assure, project performance against business case on a monthly basis, using 'stage-gated' project management systems. These ensure that key milestones are met on time and on budget, and that expected business benefits are realized. Such rigor allows project funding to be reassessed at regular intervals. If management wants to shift capital to other initiatives, then lower-priority projects can be slowed down, narrowed in scope or stopped.
- Interestingly, only two respondents include performance reporting in the scorecard of the responsible individual and his/her manager, for performance assessment purposes.

"We implemented a benefit realization process over the past year. The next step will be to include the results of benefit realization as part of future benefits cases via a "personal" risk score that will be mapped to business units."

—Survey respondent

"There is a growing demand by investors to better understand the company's capital management strategy, the short- and longer-term risks and opportunities (and how the Board and management are dealing with them), as well as performance to date and future prospects. Investors are including material financial and non-financial factors in their valuation models, so telecom businesses' capital management stories, including performance on major projects, will have a direct impact on their market values."

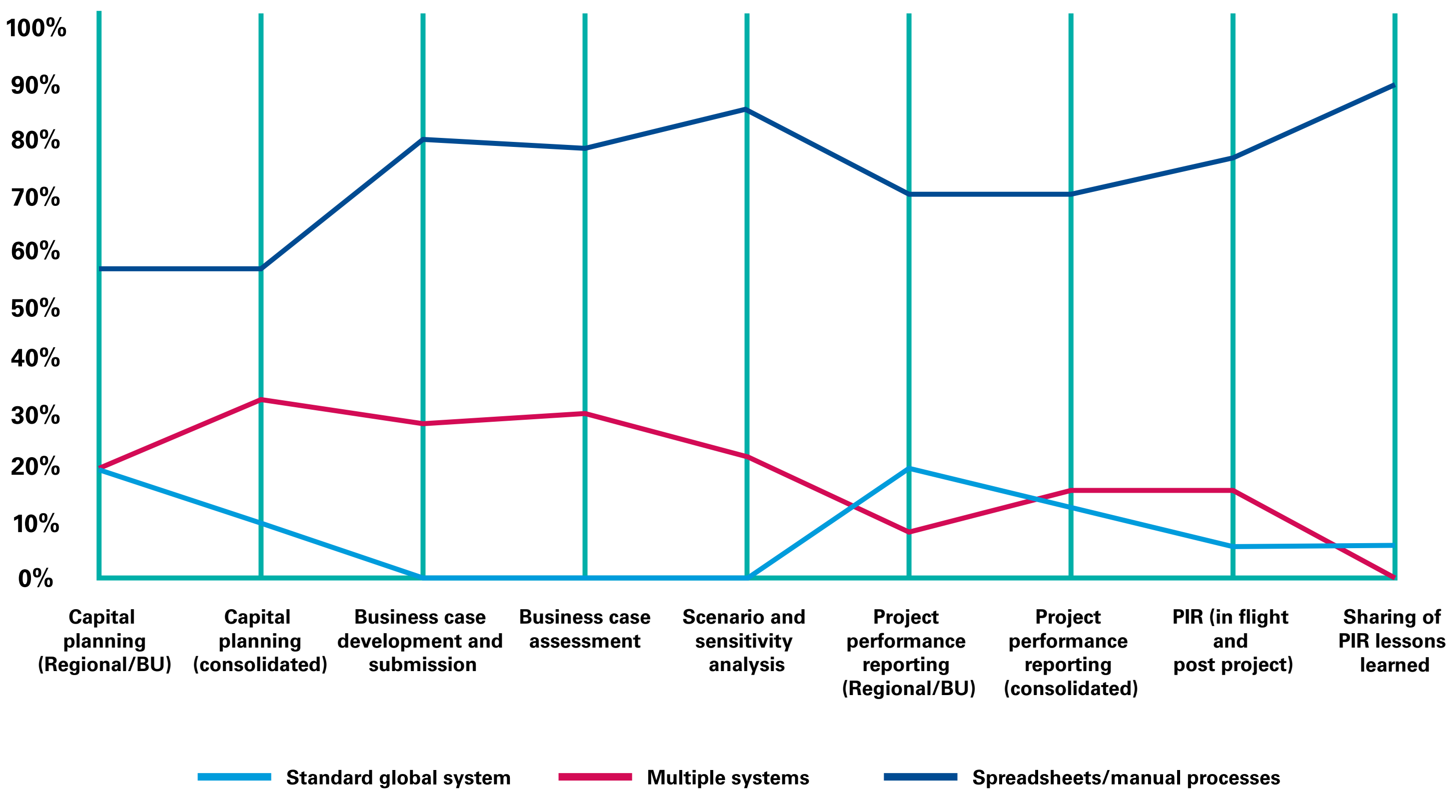
—Nick Ridehalgh, Partner, KPMG in Australia

Common capital management systems

Despite an apparent focus on technology and software, the majority of companies taking part in the survey still use spreadsheets throughout the capital management cycle. This practice can be cumbersome and inefficient, and is prone to error, multiple versions of the truth, and data corruption, as well as posing a security risk. On a positive note, a number of respondents' firms are starting to build common systems, or to utilize the capabilities of their enterprise resource planning (ERP) system to manage the end-to-end capital management cycle. This approach can significantly improve efficiency, and should be adopted more widely.

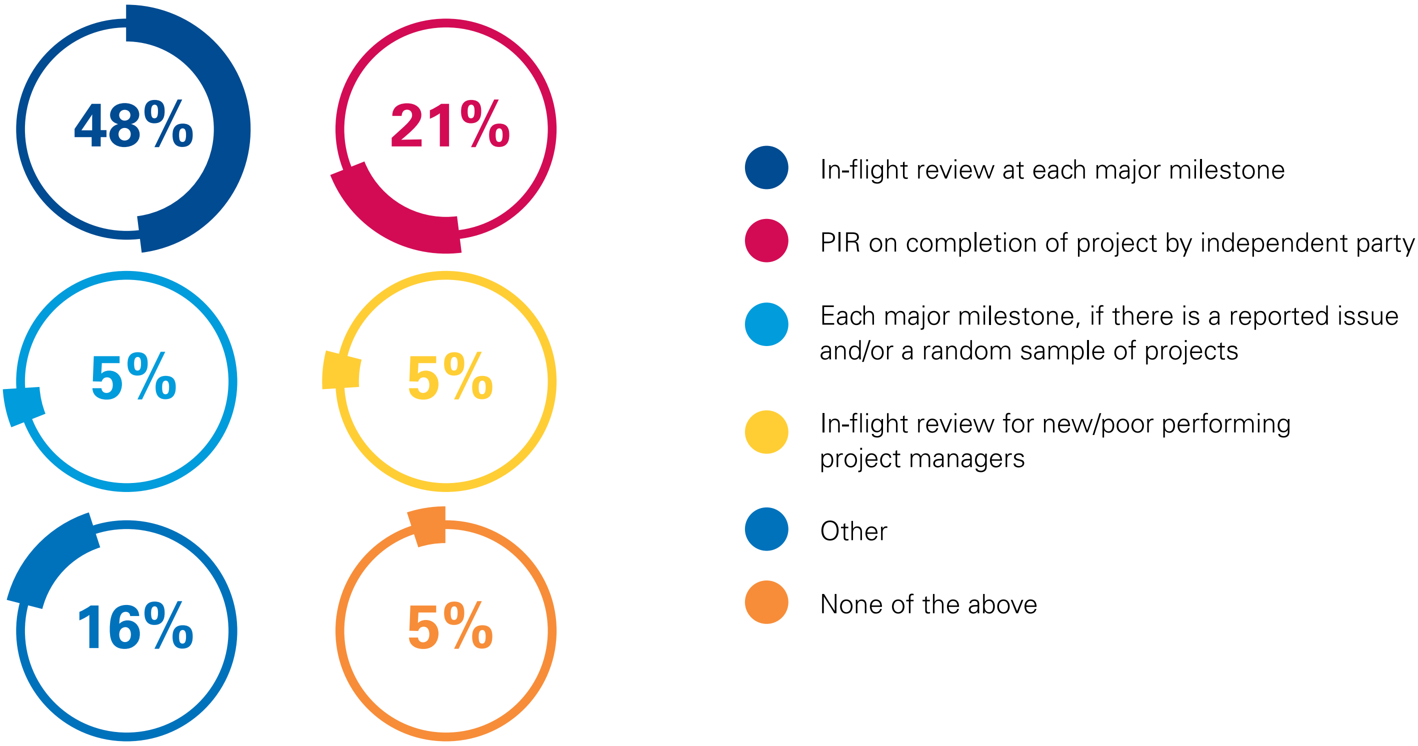
> "Our key improvements to capital management over last 3 years? Refreshed capital management systems; a global system being implemented across the whole capital management lifecycle; and new capital products created to accelerate cash flows to fund new developments/projects."
>
> —Survey respondent

Figure 9: How would you describe the use of technology for the following?



Source: 2015 KPMG Capital Management Survey

Figure 10: When are formal independent project/program review undertaken?



Source: 2015 KPMG Capital Management Survey

Post-implementation reviews (PIRs) deliver continual improvement

Many telecom companies participating in the survey (47 percent) perform in-flight reviews at each major milestone in the business case, to assess whether to continue, stop or refine the approach, in order to complete the project and bring home the business benefits. Across other sectors, companies favor a 'stage-gate' approach to review progress against plan and release funding for the next stage.

Post-implementation reviews confirm whether the expected benefits have been, or are likely to, be achieved, and ensure that any issues or lessons learned can be shared with the rest of the organization, to improve future performance.

Only 52 percent of respondents "always" or "nearly always" undertake a formal review and share the findings across the group; a practice that systematically drives continuous improvement in capital management processes.

Twenty-one percent of post-implementation reviews are carried out by an independent party for major projects – usually Internal Audit. These typically cover financial and technical aspects of the project.

Stage-gate

A stage-gate is the end of a defined stage in a project (such as delivery of a key milestone), where performance to date is re-assessed against the original plan, and amended for any actual or assumed changes to that plan. Based on work to date and a re-assessment of the plan, a decision is made on commencing the next stage of implementation.

"An appraisal should be continuous not static, and should point forward rather than going over the past – something that managers, psychologically, find quite hard to do. It should not be an exercise in blame, but an objective assessment about what could be done better, and how best to proceed. And it doesn't have to be overly complex, so organizations should look primarily at key indicators such as cash flow versus forecast."

—Aswath Damodaran, Professor of Finance, Stern School of Business, New York University

Leading practices

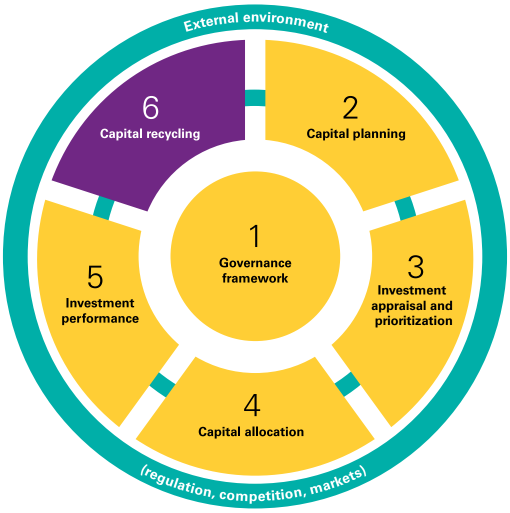
- Most respondents have standard project accounting processes and practices
- 68% prepare regular reports for performance review at all levels of the company
- Head Office reviews all projects in-depth on a quarterly basis, or more frequently if an issue arises. A problem project list should be prepared for Board/Capital Committee review – offering high visibility to ensure remediation action is taken
- End-to-end capital management reporting should be embedded in core ERP systems (or into a standard global system)
- 47% of respondents perform in-flight reviews at each major milestone
- 73% formally share post-implementation reviews findings across the group
- 70% of post-implementation reviews cover technical and financial aspects of projects
- 21% conduct post-implementation reviews using an independent group
- Telecom companies should consider using a 'stage-gate' process, to validate progress and release funding once milestones are achieved and benefits realized.

6

Recycling capital: a lesson in active management

Common practices

- **Majority annually review the strategic importance of businesses and assets**
- **Around half of respondents more frequently review the strategic importance of projects**
- **Few report monthly on capital projects, to enable Head Office to monitor project and capital expenditures against budget**



Making the hard choices – releasing capital invested in non-strategic areas

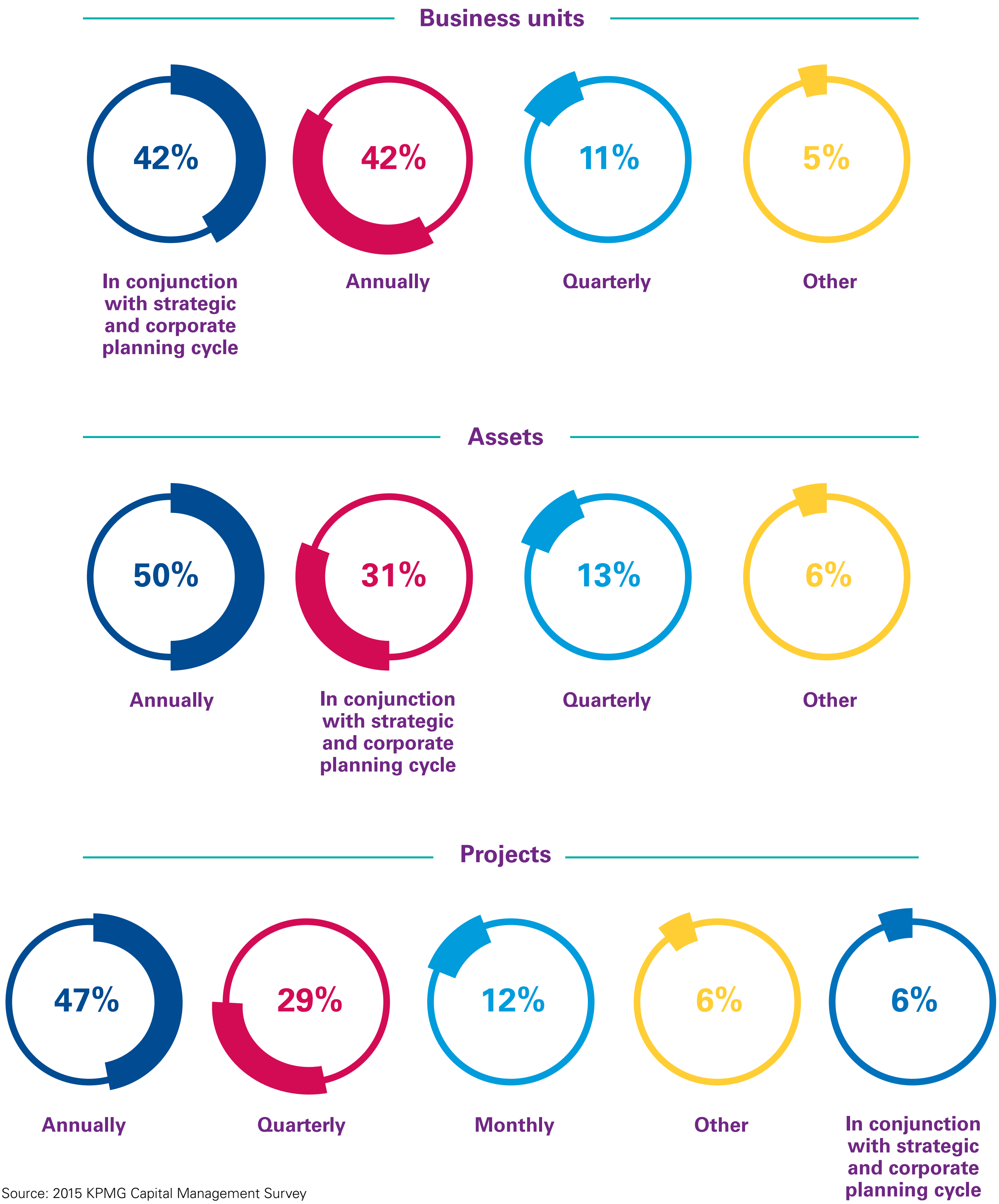
Recycling of non-strategic or underperforming businesses and assets is an important source of funding, releasing capital to invest in more strategic areas and reducing external financing.

Over 80 percent of respondents say they use the annual corporate planning process to review businesses and assets for strategic importance and recycling opportunities.

At a project level, reviews should not simply monitor performance against expenditure budgets and realization of expected business benefits; companies should also regularly assess whether the investment is still strategically important. By stopping or scrapping poor-performing or less strategic projects, they free up capital for other investments.

Forty-one percent of the telecoms companies surveyed carry out quarterly or monthly reviews of project performance, to determine their strategic fit.

Figure 11: How regularly do you review invested capital (business units, assets, projects) to assess their strategic importance/performance and determine the opportunity to sell/scrap to release funds/reduce outgoings?



Source: 2015 KPMG Capital Management Survey

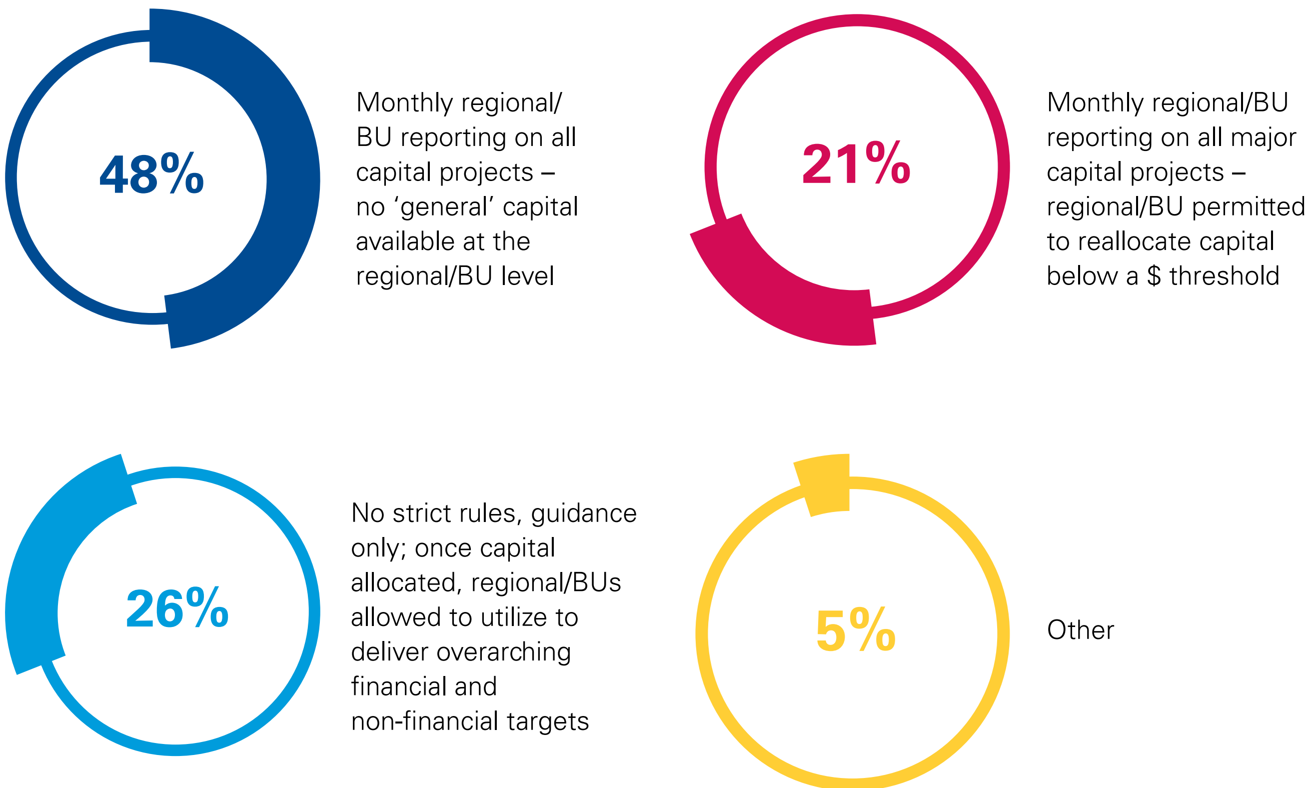
Controlling the allocation of project underspend

Once capital has been allocated to telecom business units for specific projects, it is important to monitor how it is spent. Sixty-nine percent of respondents say their companies have strict rules to return any unused capital funding to Head Office for re-allocation to the next most strategic project. In some cases these rules apply only to pre-defined 'material' amounts.

Some of the companies adopt a 'zero-balance management' approach to regional or business unit bank accounts. This means that there are no surplus funds available for unauthorized investments.

However 26 percent of telecoms companies appear to have no formal guidelines. Business units can utilize the underspend to meet overall financial and non-financial budgets and targets, making adjustments as required to local projects, to suit changing circumstances.

Figure 12: How do you monitor regional or business unit retained underspend on approved projects?



Source: 2015 KPMG Capital Management Survey

Leading practices

- 41% of respondents conduct quarterly or more regular reviews of projects/programs, to assess their strategic fit and best use of available capital
- 69% of respondents require underspend of allocated funding to be retained by Head Office, to be re-allocated to the next most strategic group-wide project

Recycling businesses and assets for more strategic investments

Case study: KPN, the Netherlands[3]

In November 2012, KPN sold 2000 mobile phone towers in Germany to American Tower for US$501 million, with the proceeds invested in the new mobile network roll-out in Germany, as well as in Dutch spectrum auctions. KPN also scaled back international operations, to focus on its domestic market. In 2012, it divested mobile virtual network businesses in Switzerland and Spain, and ICT arms in Europe and Asia, in order to free up capital for investment in other parts of the business.

Case study: Bharti Airtel Ltd, India[4]

In 2014, Bharti Airtel divested 3,100 towers to HTA in four countries across its African operations. This move enabled Airtel to focus on its core business and customers, as well as reducing debt and cutting ongoing capital expenditure on passive infrastructure.

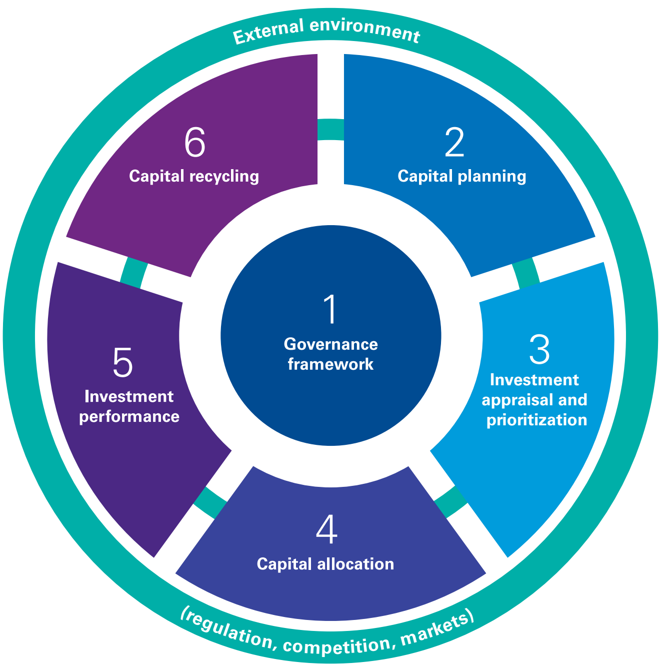
3 KPN sell German towers to American Tower, RCR Wireless, 19 November 2012
4 Airtel to divest 3,100 telecom towers to Helios Towers, People's Daily, 11 July 2014.

"Our capital management survey has highlighted a number of tangible opportunities for telecom companies, and, indeed, for other capital intensive businesses. Boards and executives should consider how these findings can inform their capital management practices, enabling them to refresh governance, tighten systems and processes, and improve risk mitigation, whilst accelerating 'agility' to realize short- and longer-term business goals."

—Peter Mercieca, Global Sector Chair, Media and Telecommunications, KPMG in Australia

Conclusion: Insights into emerging trends

KPMG's capital management survey confirms that telecom companies have mature capital management frameworks and are focused on the effective use of their scarce capital, to adapt to the fast pace of technological change and the voracious appetite of customers for new services and more data. However, as our study also reveals, there are opportunities to make improvements, by learning from the successful approaches adopted by certain of their peers, as well as from other capital-intensive businesses.



Here are the main emerging, leading practice trends:

1 Governance

- Boards are delegating authority for more frequent, in-depth oversight and challenge of capital management to a multidisciplinary executive Capital Committee, led by the CEO or CFO.
- Companies are starting to include capital management and investment portfolio performance on business unit/individual scorecards, to better align performance with executives' short- and long-term incentives.

2 Capital planning

- Capital planning increasingly includes all requirements for capital (even when it's ultimately managed by different groups) and overtly provides for investment agility. Ways to improve agility include: a 'stage-gate' process (releasing funds at each stage); segregating committed and uncommitted capital in the plan; building in a contingency; explaining available debt capacity and/or opportunities to raise equity; selecting businesses and/or assets for recycling.
- Companies are linking projects to the source of funding (i.e. the 'banking model') to highlight the importance of, not only, successful completion of the project, but also, achievement of the project's return on investment.
- In a fast-changing market, more and more telecom companies are seeking alliances to share the risks and rewards of major capital projects.
- Although telecom operators focus on short-term 'rolling' capital plans (1-3 years), they need to consider longer-term business risks and opportunities. This means looking 5-10 years ahead, and scanning for major potential industry game changers (opportunities and risks).
- Telecom providers should invest in ERP or common capital management systems across the group. These enable true, end-to-end capital management, monitoring and reporting, reduce the time taken to prepare plans, and lead to better, routine performance reports.

Investment appraisal and prioritization

3

- All investments, including 'business-as-usual' and renewal projects, should be consistently and rigorously appraised. This ensures that all risks are reviewed, and that scarce capital is allocated to the most strategically important projects with the best overall returns. Any non-critical 'business-as-usual' and renewal projects should be deferred where possible.
- Companies include financial and non-financial hurdles (i.e. customer, service, network, environmental) in business cases, as well as sensitivity analyses for key assumptions. More sophisticated players are using cash or economic value-add to assess risk and opportunity at a more granular level.
- Head Office experts provide central assumptions (such as foreign exchange rates and weighted average cost of capital) to ensure consistent business planning across the group.

Capital allocation

4

- Companies increasingly understand how different types of investments create, maintain and defend value. This influences the capital allocation, which is more evenly balanced to consider issues such as growth, risks, cash flow timing, and projects' strategic importance, increasing the likelihood of long-term success.
- Head Office has a robust and documented process to challenge each business case, including a 'playbook' of questions, and the option to delay or phase funding, in order to optimize return on capital.

Investment performance

5

- A standardized, 'stage-gated' project management system assesses projects regularly, ensuring key targets are met and business case benefits are realized, before the next stage is funded.
- A standard system (preferably an ERP solution) is in place to facilitate the entire end-to-end capital management process. Regular reports are prepared for performance review at all levels of the company.
- Head Office undertakes an in-depth review of all projects quarterly, or more frequently if there is an issue. Alternatively, in-flight reviews are performed at each major project milestone. A 'problem capital project list' may be considered for Board/Capital Committee review, with clear rules on how the problems can be resolved to put the project back on track.
- All, or at least major, projects should receive a post-implementation review by an independent party, with the lessons learnt built into standard procedures, training and group communications.

Capital recycling

6

- Capital discipline demands that past investments must pay their way or be strategically relevant to the organization. If not, they should provide an opportunity to recycle capital into more highly valued activities or projects.
- Regular (quarterly) performance reviews should monitor performance of new projects against expenditure budgets and realization of expected business benefits, as well as assessing whether the investment is still strategically important. Stopping or scrapping poor-performing or less strategic projects frees up capital for more valued uses.
- Transferring unused expenditure budgets back to Head Office enables funding to be used on the next most important strategic investment within the organization

"Most organizations are not constrained by opportunities to invest; quite the contrary. In the current environment, capital providers are challenging Boards and management to demonstrate their discipline in managing invested and available capital resource, in order to make the hard decisions at the right time."

—Wayne Read, Partner, KPMG in Australia

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