



MARITIME

Energy efficient operation – what matters

Energy Management Study 2015

Nor-Shipping 2015

Oslo – June 4th, 2015

The 2015 Energy Management study

Objectives

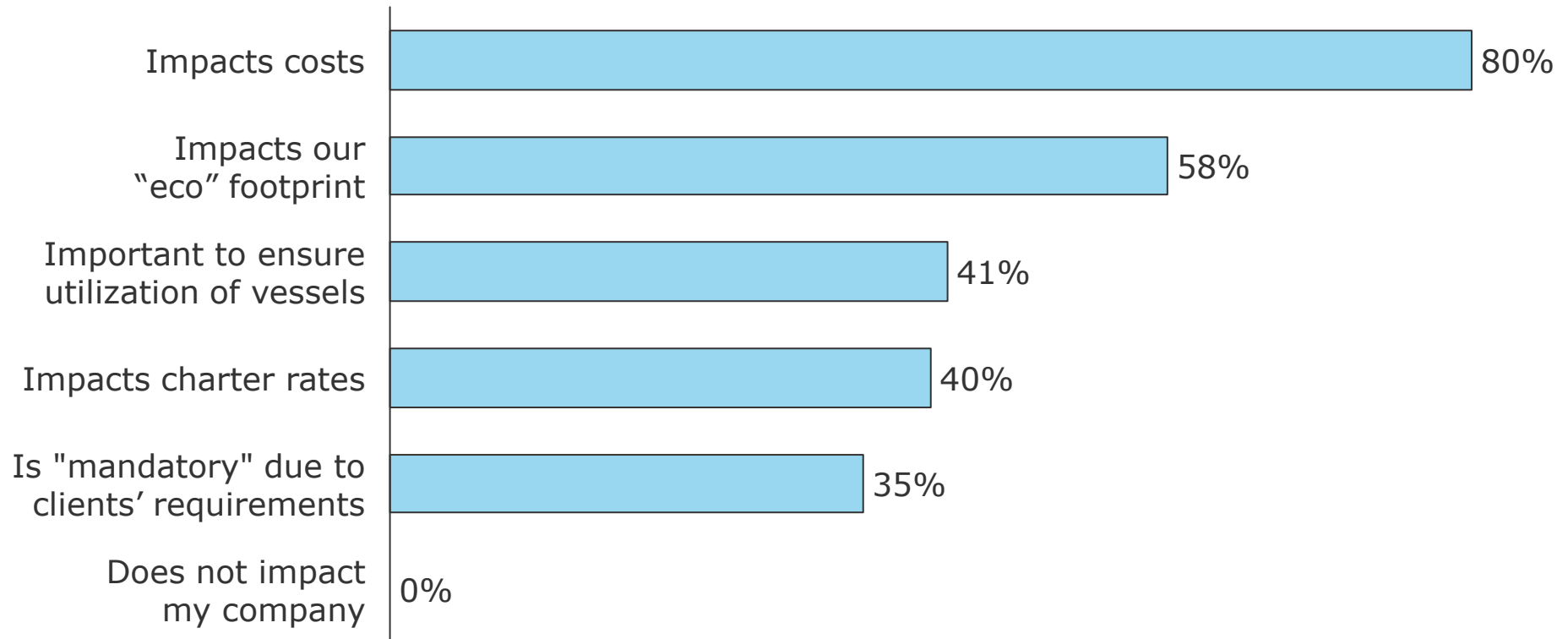
- What matters to make operation energy efficient?
- What worked well?
- Where did we struggle?
- What are the success factors?
- What are the plans going forward?

Participants

- 80 shipping companies
- Headquartered in 24 countries
- 51 are ship managers, 43 are owners and 19 are operators
- All major vessels segments covered well:
 - Above 30 each in container, tanker, bulker
 - About 10 each in offshore, MPV and cruise

Energy efficiency is important for various reasons, with direct cost impact being most important

Q5: How does energy efficiency impact your company?



Take away

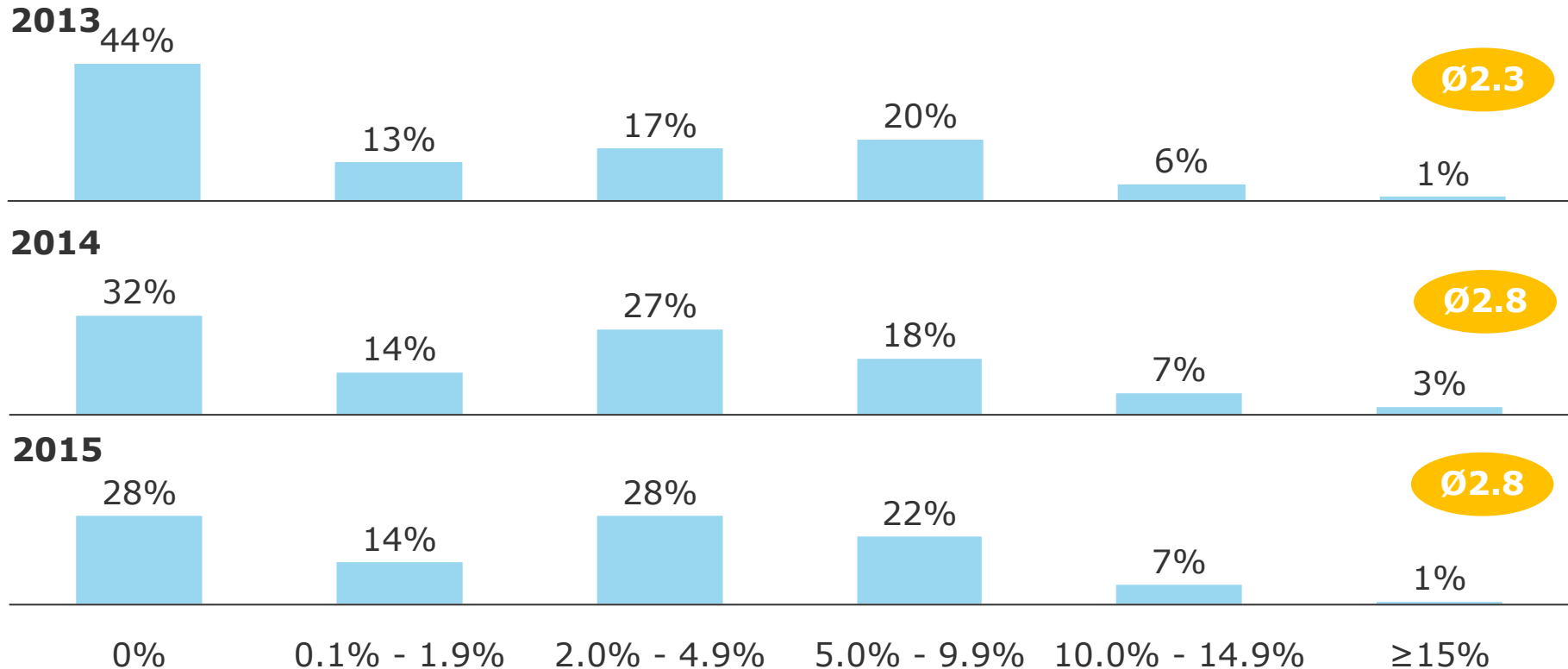
- Most respondents name two or three reasons why energy efficiency is important for them, nobody feels unaffected.
- Cost is the key driver for efficiency, followed by environmental footprint and charter market.

Source: DNV GL Shipping Advisory

N = 80 , multiple answers possible

Ambition levels for energy saving targets are low

Q30: What type of quantitative energy targets, in % of fuel reduction, have you defined?



Take away

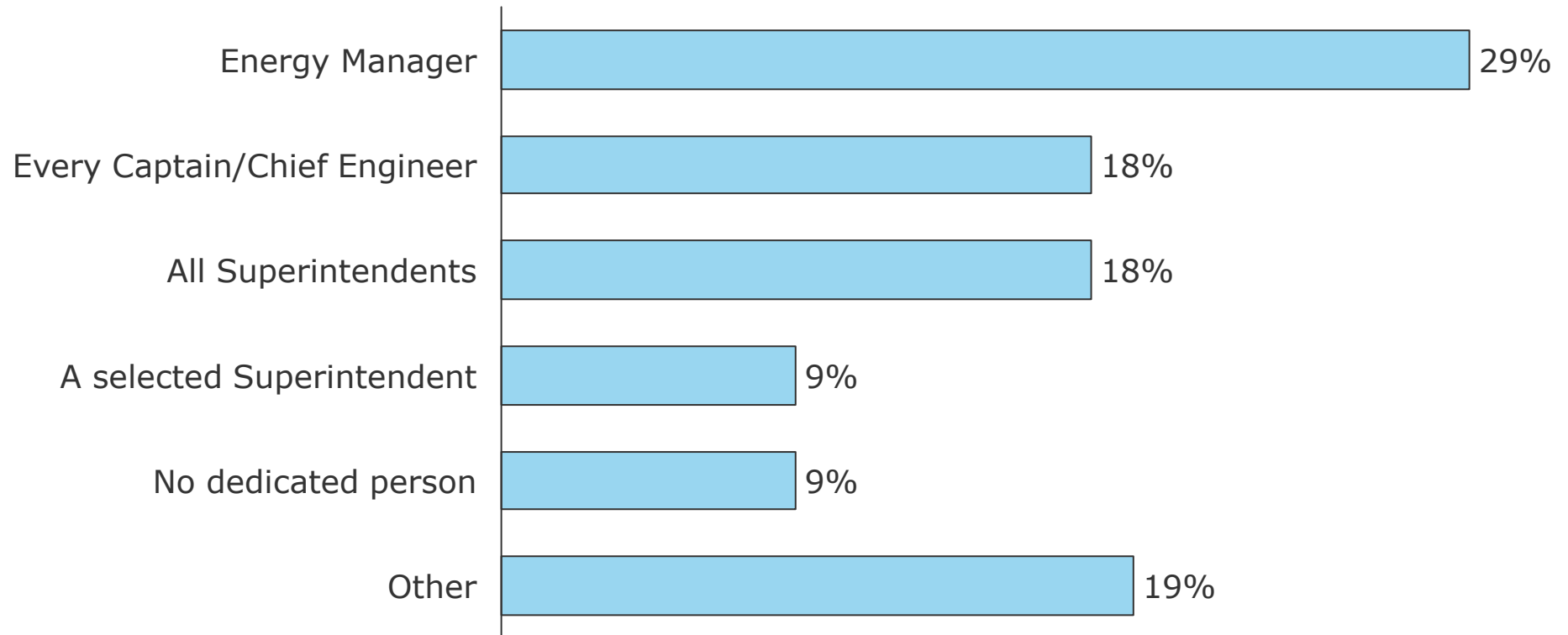
- Share of companies with target "0%" decreased from 44% in 2013 to still high 28% in 2015.
- Just about one third of respondents aims for 5% energy saving or more.
- Average ambition fairly stable at 2.8%.

Source: DNV GL Shipping Advisory

N = xx , multiple answers possible

Organizational anchoring of energy management seems weak in many shipping companies

Q23: Who has the key responsibility within your organization for energy management?



Take away

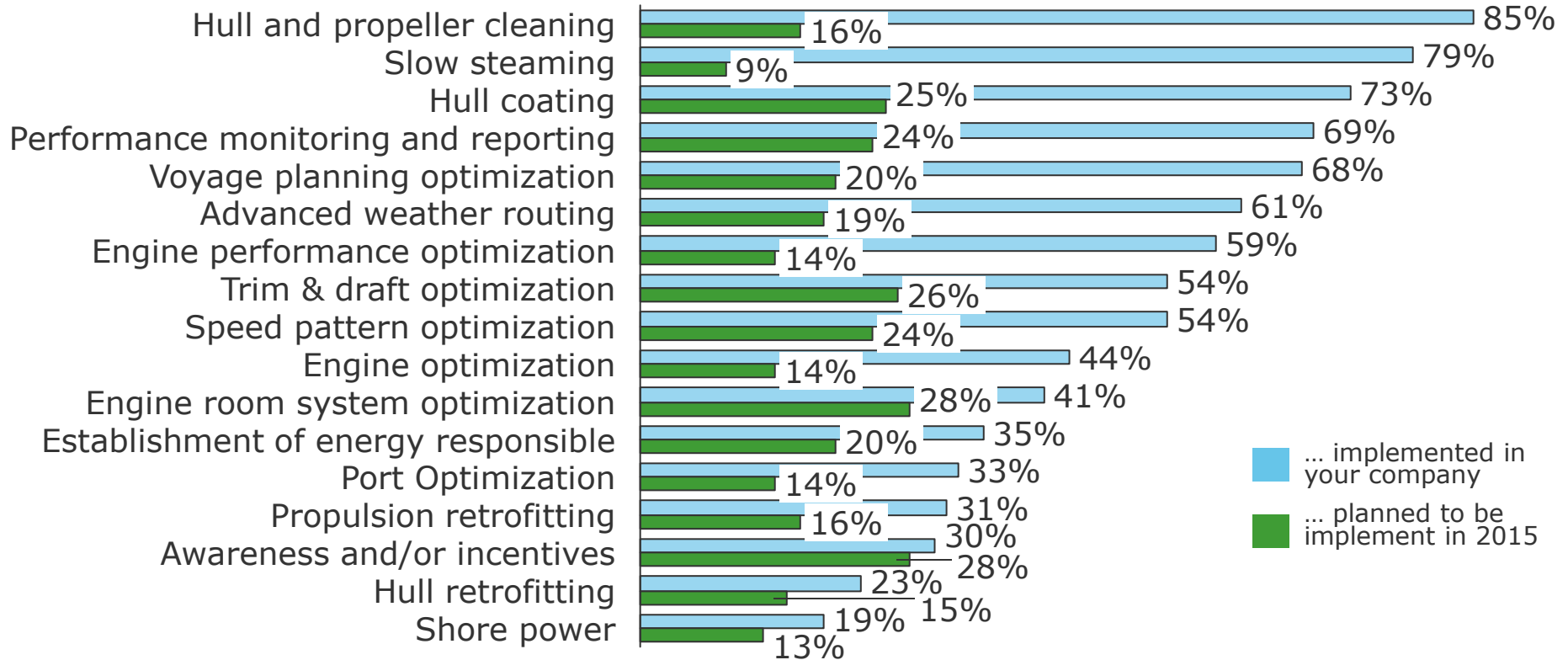
- Not even a third of all shipping companies has a dedicated energy manager (or team).
- Most companies have assigned the task to “everybody”, which oftentimes means “actually nobody”.

Source: DNV GL Shipping Advisory

N = 80

Many “simple” measures have been addressed yet, but awareness on no.1 for 2015 indicates that implementation is challenging

Q14: What are the energy saving measures that are...



Take away

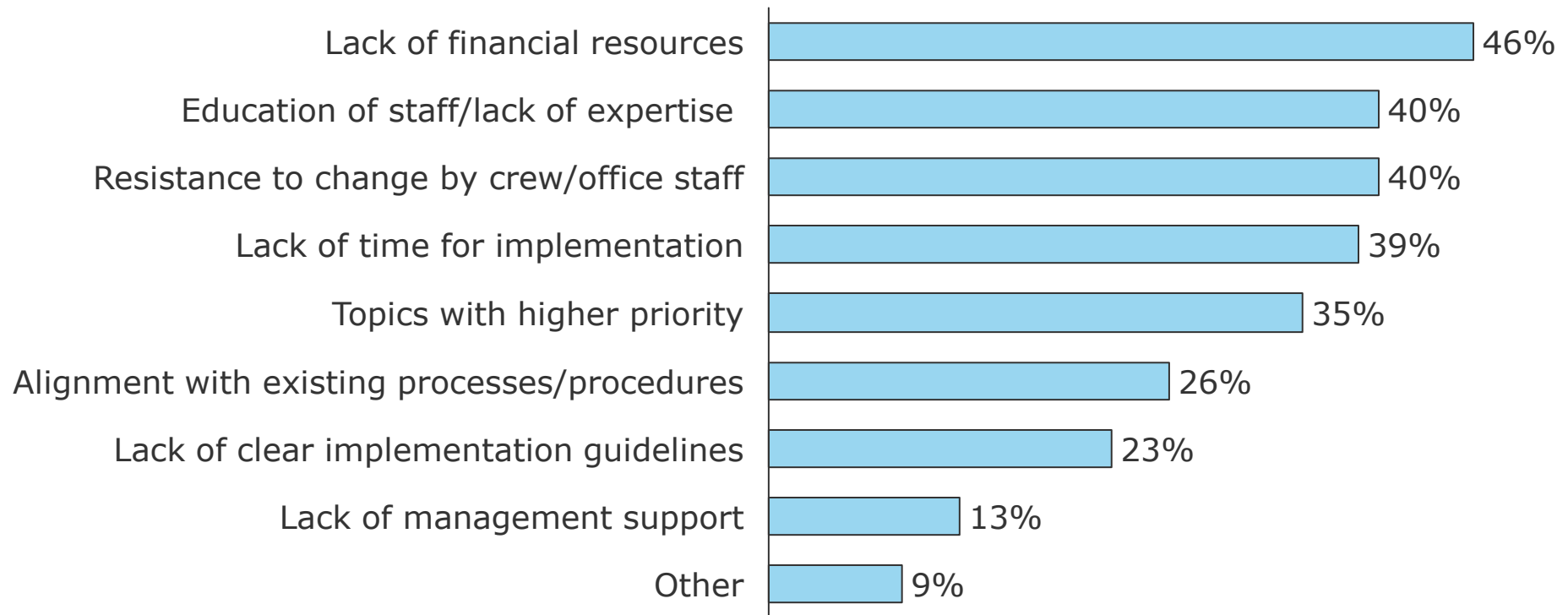
- 9 typical energy savings measures have been implemented by more than 50% of respondents, most of the being operational measures.
- Awareness shows nearly lowest implementation so far but is planned as no. 1 for 2015.

Source: DNV GL Shipping Advisory

N = 80 , multiple answers possible

Besides lack of financial resources capabilities, behavior and time seem to be key challenges for implementation

Q13: What challenges have you encountered when implementing energy saving measures?



Take away

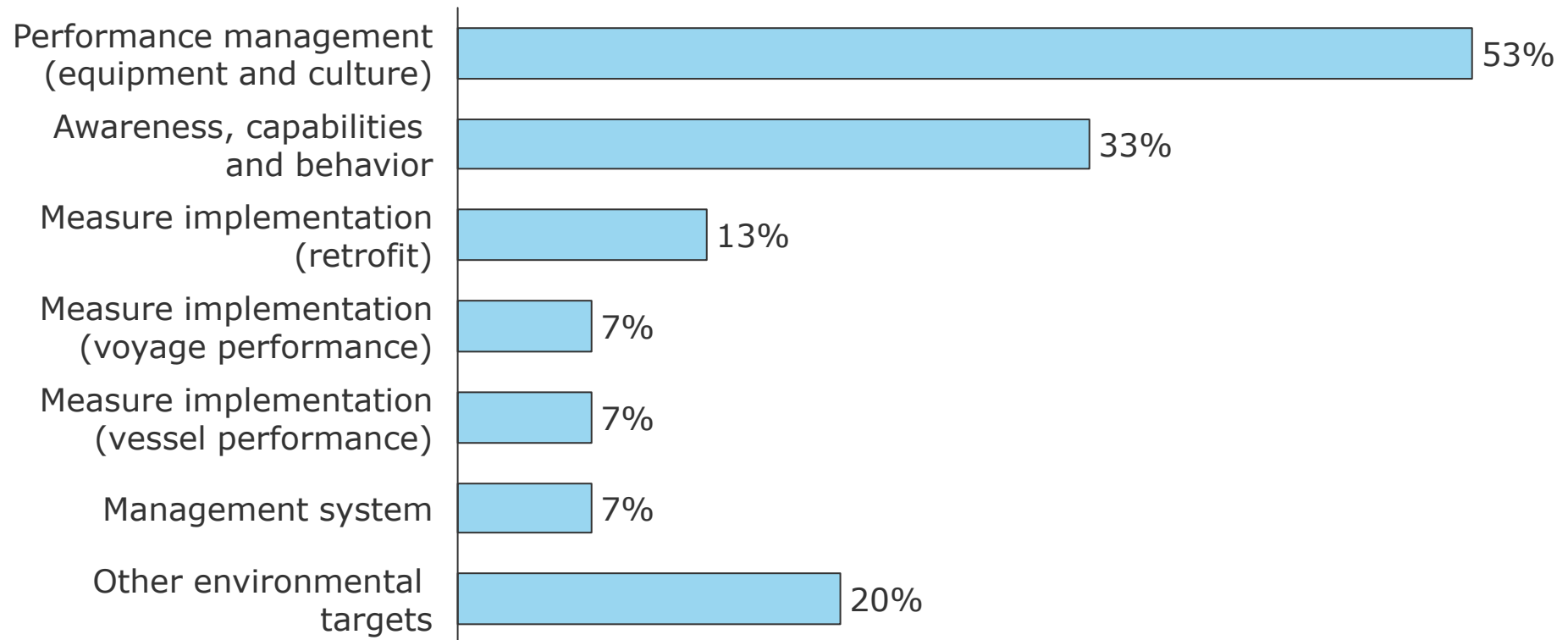
- Lacking financial resources are the key challenge for technical/retrofitting measures.
- Lacking capabilities and buy-in of crew and office staff are the key challenges for most operational and managerial measures.

Source: DNV GL Shipping Advisory

N = xx , multiple answers possible

Shipping companies define implementation of performance management and behavioral change as targets for 2015

Q31: What other (qualitative) targets did you define?



Take away

- More than half of companies with qualitative targets want to implement performance management in 2015.
- One third of companies wants to foster awareness and capabilities for behavioral change

Source: DNV GL Shipping Advisory

N = 30 , multiple answers possible

Summary

- **Cost impact is the key driver for energy efficiency** – followed by environmental footprint and positioning on the charter market
 - **Ambition levels moderate** – 2015 still 28% have no quantitative savings target, just 31% aim for 5% or more
 - **Unclear responsibilities** – just 29% have a dedicated energy manager, most others assigned energy efficiency to everybody (...actually nobody)
 - **Common measures** – well-known measures with little investment prevail: slow steaming, hull and propeller cleaning, voyage planning
 - **Implementation is people business** – besides lack of resources (financing, time), lacking capabilities and resistance to change are the main hurdles
 - **Important enablers** – 53% plan to strengthen performance management, 33% want to foster awareness capabilities and behavior
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- **Full study will be published end of June** – sign in to get a copy!

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SAFER, SMARTER, GREENER

DNV GL Shipping Advisory at a glance

Ships



Expertise

- 150 years of experience
- 13,000 vessels in class
- Leading R&D
- Strong position in all vessel segments

Shipping



Presence

- 300 offices in 100 countries
- 4,500 colleagues at the heart of shipping every day

Management



Professionals

- Line managers of shipping companies
- Experienced management consultants

Shipping Advisory – a unique combination.

Shipping Advisory – strong local presence in a global network



9 hubs – 50 professionals

If you face some of these challenges,...

- How can I **anchor energy efficient operation** in my organization – and really save money?
- How should I **measure and manage** energy performance?
- What **technical levers** do we have to increase energy efficiency of our vessels – during newbuilding and in retrofitting?

- How is my **fleet management's** technical, operational and financial performance?
- How is my **OPEX performance** and what can I do to **reduce OPEX** while maintaining quality ?
- What can I learn from **industry best practice** to increase **availability, asset performance and to reduce costs?**

- How should we adapt **organization, governance and processes** to meet our **growth strategy?**
- What are the **trends and drivers** in profitable niche **markets?** What can we learn from other **shipping clusters?**
- How can we most **efficiently achieve compliance?**

- How can I be **cost efficient** and **emission regulation** compliant?
- Which **ballast water treatment system** suits best for my ship?
- How can we **save fuel and emissions** by **AIS** ship traffic analysis?
- How will authorities benefit from **AIS** based ship traffic analyses?

**Energy
efficiency**

**Fleet
management**

**Business
decisions**

**Technology and
fuel selection**

...Shipping Advisory might be your partner.

1 Energy Efficiency Excellence	Energy efficient newbuildings
	Fleet retrofit screening
	Energy efficient operations
	Energy compliance
2 Fleet Management Excellence	Fleet management benchmark
	ISRS7 Alpha assessment
	Business intelligence data review
	OPEX benchmark
3 Maritime Business Excellence	Maritime industry analysis
	Business improvement
	Regulations & compliance
3 Environmental Technology and Alternative Fuels	Emission compliance strategies
	Assessments of novel technologies
	Fuel selection: LNG, scrubber etc.
	AIS to map emissions & fuel