INTEGRATED HOME MARKET ANALYSIS - 2021

POWERED BY CEDIA

US Analysis Summary

April 2022

Agenda

INTEGRATED HOME MARKET ANALYSIS - 2021

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- Objectives and Approach
- Key Findings
- Market Size
- Market Segmentation
- Voice of the Integrator
- Brand Rankings
- Q&A

Prepared by:
Ancrage Consulting LLC, in affiliation with Butler University Lacy School of Business.

Objectives

You Spoke. We listened to Your Priorities:

- ✓ Size of Integrated Home Industry – by revenue and number of companies
- ✓ Areas of Expenditure – where integrators are allocating investment by category / where customers are allocating home improvement budgets
- ✓ Preferred Brands by Category
- ✓ Typical Project Size
- ✓ Typical # of Projects per Year
- ✓ % Residential / Commercial

Approach

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Summer 2021:

- **Market assessment** to clarify objectives for this research
- **"Expert Interviews" on topic of market size** with 19 leading US Manufacturers and Distributors across all integrated home categories
- **Survey rebranding & design updates** (shortened to 15 mins from 1 hour)

New activities to optimize 'Size & Scope' study value for CEDIA Members

Fall-Winter 2021-22:

- Survey fielding in US and UK markets
- Market sizing analysis
- Survey data analysis

Spring 2022:

- Results & information sharing begins

"Need to Knows"

1. **Increased confidence in market sizing estimates**
   - Framed by estimates from CEDIA + 19 market leaders
2. Unlike other industry research, **survey participants are strongly vetted**
   - Integrators based in the US
   - Only business decision makers qualify
   - Minimum of 20% revenue in residential & minimum of 3 residential projects completed in last 12 months
   - One response allowed per company (important for market sizing analysis)
   - 80 responses gathered from US integrators
3. **Top brand rankings** are designated based on products specified by integrators, not hearsay
4. A note about timeframes:
   - To improve the timeliness and accuracy of estimates, integrators were asked about revenue over the last 12 months (effectively, Fall 2020-Fall 2021) and the next 12 months (Winter 2021-Winter 2022)
   - We refer to the prior 12 month estimates as "2021" and the future 12 months as "2022" for ease of reporting

Market Analysis Partners

AMERICAN LIGHTING
BRIGHT IDEAS • INNOVATIVE SOLUTIONS

AZIONE UNLIMITED
THE SMART HOME ASSOCIATION

HTSN
HOME TECHNOLOGY SPECIALISTS NATIONWIDE

integrated systems europe

JOSH

PowerHouse ALLIANCE

PROSOURCE

Russound.

SAMSUNG

SAVANT

snap one™

SONOS

Stewart FILMSCREEN

SURGEX®

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Key Findings

Key Findings

Market Size:

- Approximately 11,000 integrator companies operating in the US
- Average annual revenue of $2.2M
- Average project size: $26K
- Estimated current US market size: $20.1B
- Bullish industry growth projections for the next 12 months

Market Segmentation:

- On average, 83% of revenue is from residential projects
- Number of employees commonly varies from 2 to 20 (avg: 11)
- Number of projects varies broadly by company size (avg: 70)
- 81% anticipate adding a technical resource in the next 12 months

Key Findings

Voice of the Integrator:

- Growth areas are lighting/shading, lighting control and networking
- Less distributed video/matrix setup (continued shift to streaming)
- DIY trend continues to put pressure on this market
- Trend toward 'simpler' solutions

Brand Rankings:

Brands most often specified and installed by integrators

Control4 | LUTRON | SONOS YAMAHA AVProedge SONY | SONY | araknis NETWORKS | SONANCE ORIGIN ACOUSTICS TRIAD SONOS | SI | DSC

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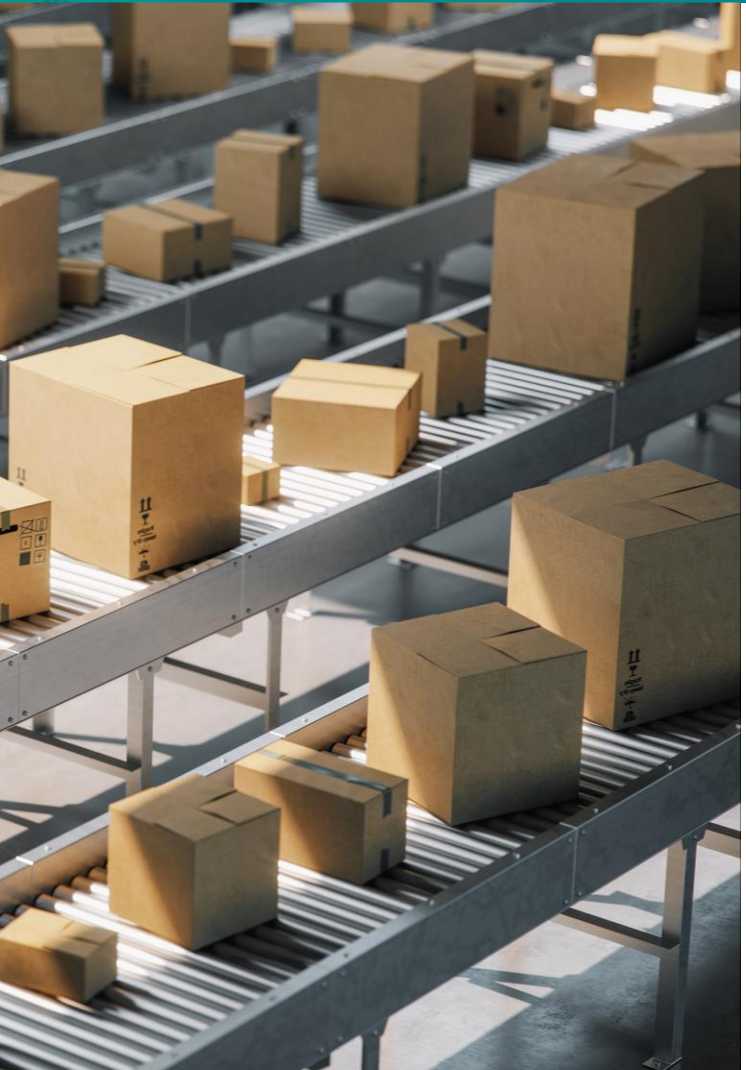
US Market Size

US Market Size



# of US Integrator Companies

Market size estimates from CEDIA + 19 market leaders

Residential Revenue

Revenue information collected via survey from 80 vetted US integrators

US Residential Integrator Market Size

US Market Size

of US Integrator Companies

Market size estimates from CEDIA + 19 market leaders

- Based on feedback from manufacture and distribution business leaders closely involved in this market, we identified ~11,000 home technology integrator companies in the US market.

Residential Revenue

Revenue information collected via survey from 80 vetted US integrators

US Residential Integrator Market Size

US Market Size

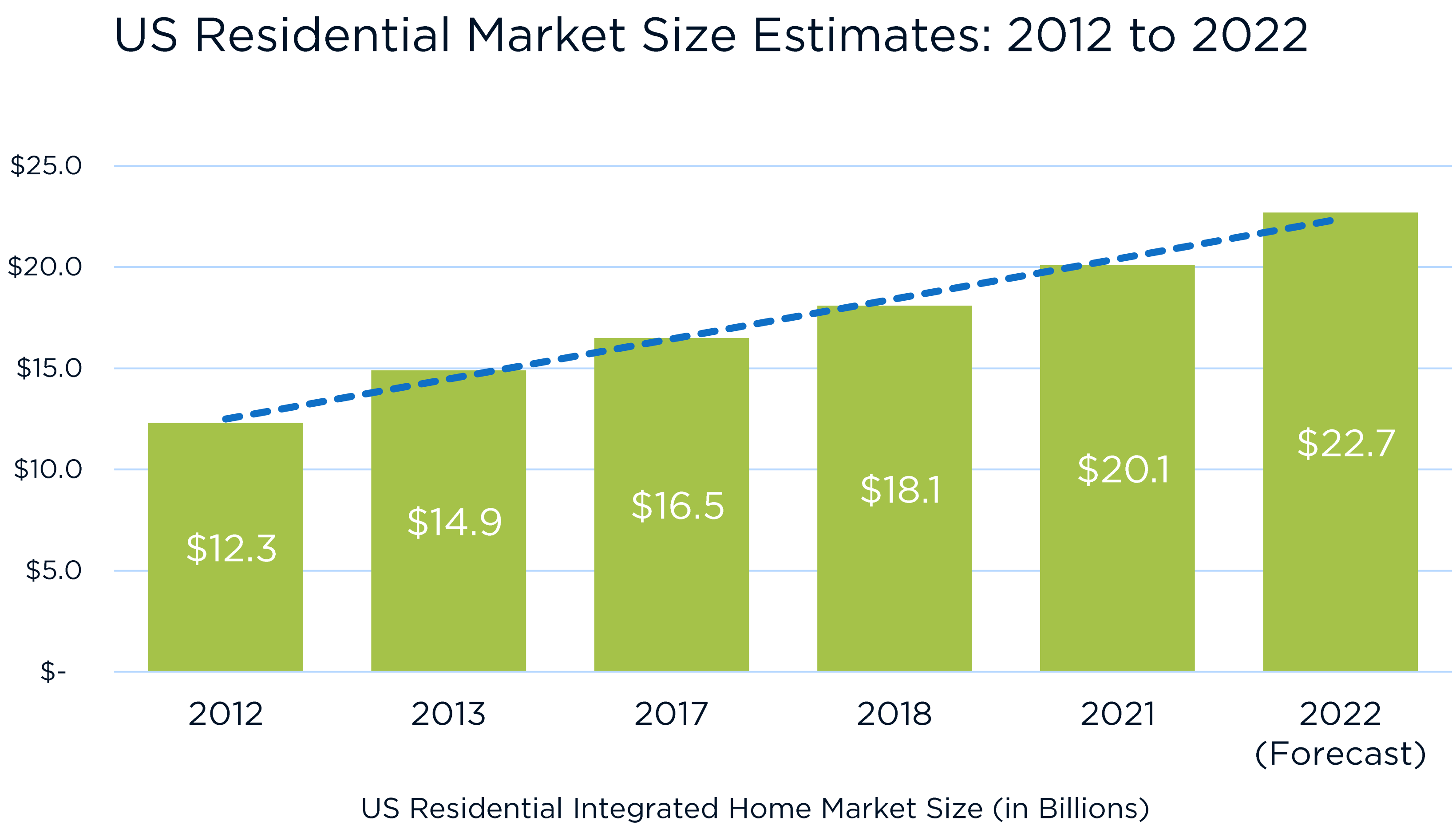
# of US Integrator Companies Market size estimates from CEDIA + 19 market leaders	• Based on feedback from manufacture and distribution business leaders closely involved in this market, we identified ~11,000 home technology integrator companies in the US market.
Residential Revenue Revenue information collected via survey from 80 vetted US integrators	• Average integrator revenue over last 12 months: \$2.2M • % of Revenue that is Residential in nature: 83% • Average project size: \$26K
US Residential Integrator Market Size	

US Market Size

# of US Integrator Companies Market size estimates from CEDIA + 19 market leaders	• Based on feedback from manufacture and distribution business leaders closely involved in this market, we identified ~11,000 home technology integrator companies in the US market.
Residential Revenue Revenue information collected via survey from 80 vetted US integrators	• Average integrator revenue over last 12 months: $2.2M • % of Revenue that is Residential in nature: 83% • Average project size: $26K
US Residential Integrator Market Size	**Current US Market Size: $20.1B** **Estimated for Next 12 Months: $22.7B** Market Size is estimated based on assumptions founded on integrator research and expert perspective from industry leaders

US Market Size

- ✓ US Integrated Home market size is estimated to have grown from $12.3B in 2012 to $20.1B in 2021

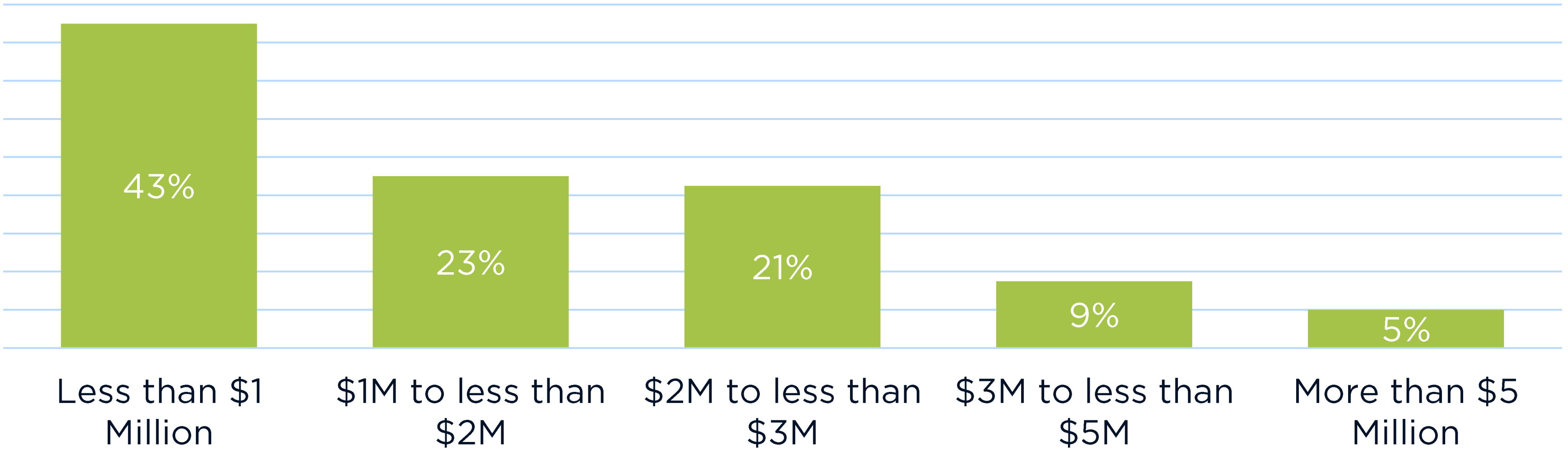


US Market Size

- ✓ While the average company size is $2.2M, there are many smaller-sized integrators (<$1M in revenue) serving this market as well

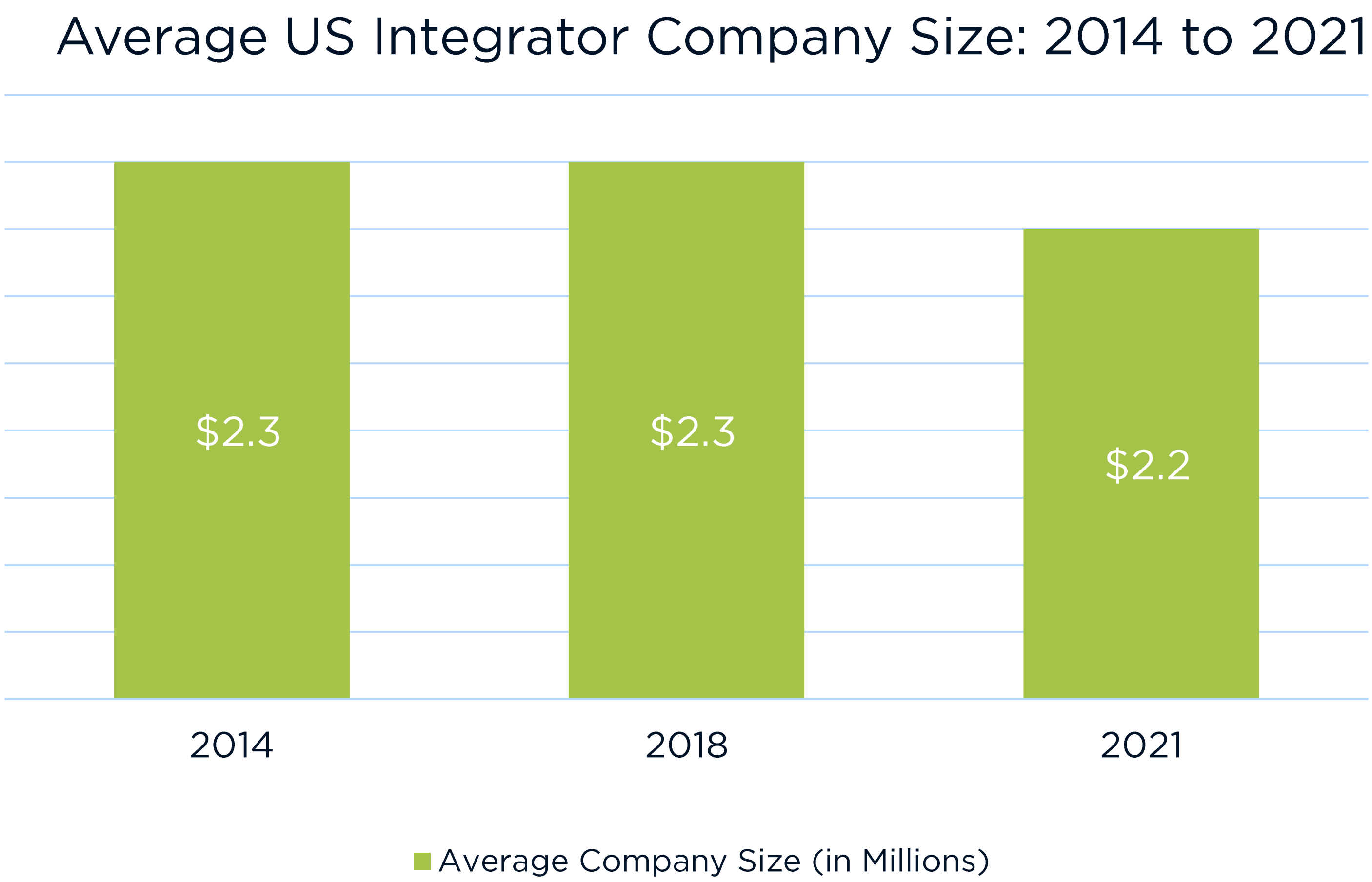
US Integrator Company Size		
	Average Annual Revenue	$2.2 Million
	Median Annual Revenue	$1.1 Million

US Integrator Company Size Breakdown



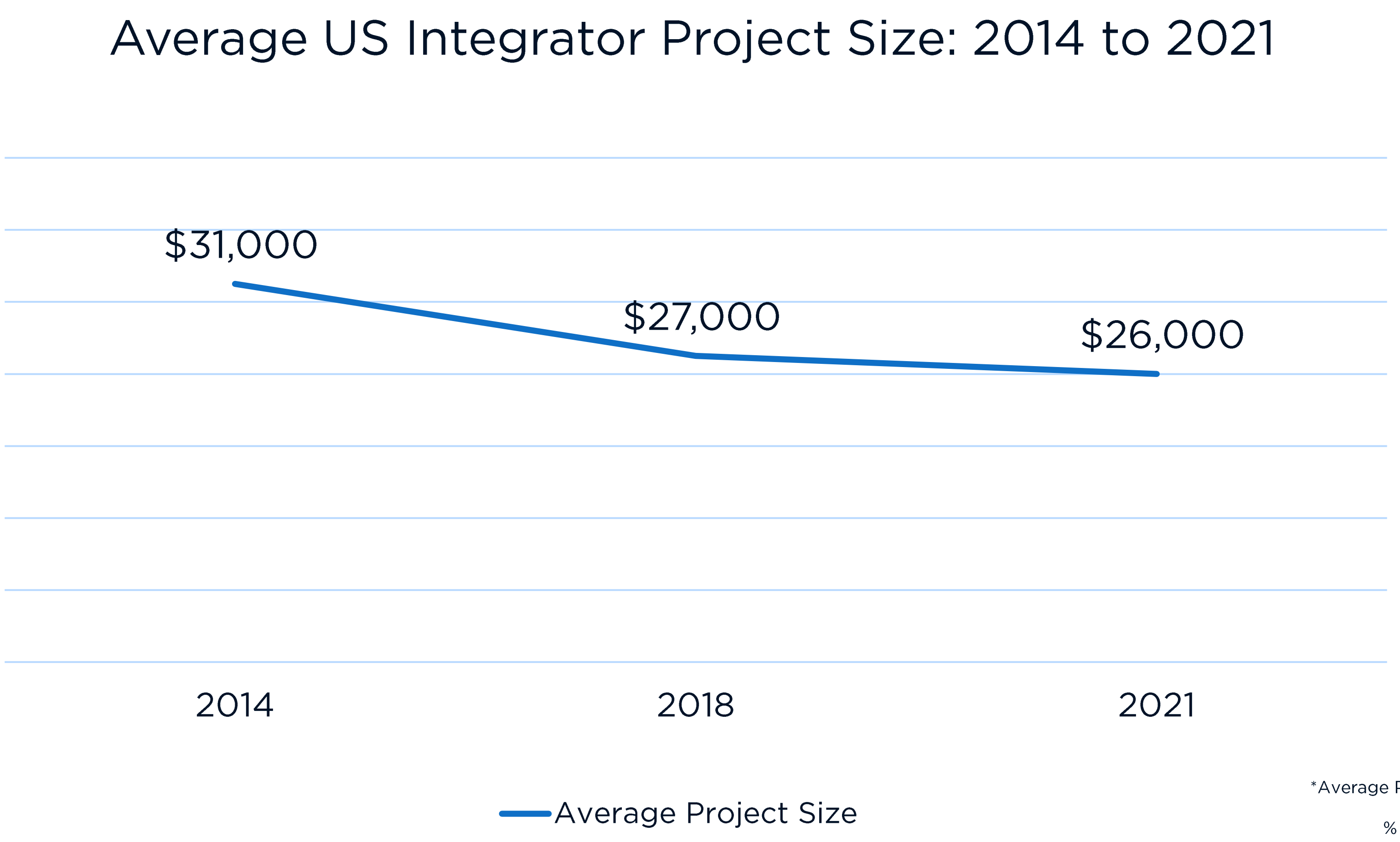
US Market Size

- ✓ Average integrator company size is largely consistent over time (as is # of employees, shown later)



US Market Size

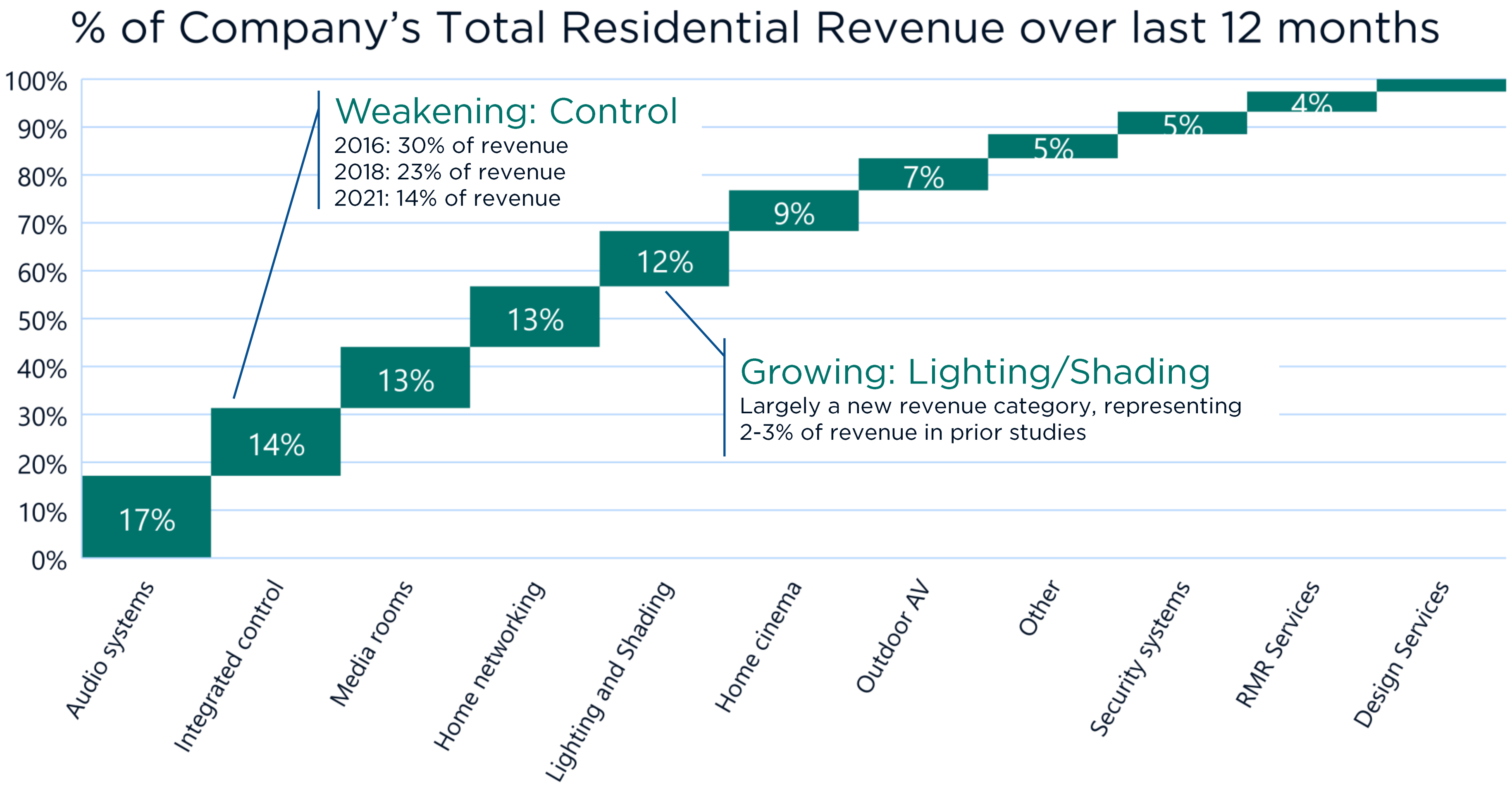
- ✓ Average residential project size has decreased slightly over time
- ✓ Number of projects (shown later) has been increasing



*Average Project Size Calculation = Average Revenue X % of Residential Revenue / Average # of Projects

US Market Size

- ✓ Audio systems contribute the largest percentage of revenue for US integrators
- ✓ Lighting/shading category is growing, while control systems weakens in its share of revenue for integrators



US Market Size

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- ✓ Audio systems category is estimated at $3.5 billion annually
- ✓ Design and RMR contribute a very small share of revenue – many are missing out on this predictable, service-based revenue stream

Category	Estimated Current Market Size
Audio systems (distributed audio, dedicated listening room)	$3.5 B
Integrated control systems	$2.8 B
Media rooms	$2.6 B
Home networking	$2.5 B
Lighting and Shading	$2.3 B
Dedicated home cinema	$1.7 B
Outdoor AV entertainment systems	$1.3 B
Other	$1.0 B
Security systems (Alarms/surveillance/access control)	$934 M
Recurring Monthly Revenue (RMR) Services	$849 M
Design Services	$528 M
FORECASTED CURRENT MARKET SIZE	$20.1 B

Growth Forecast

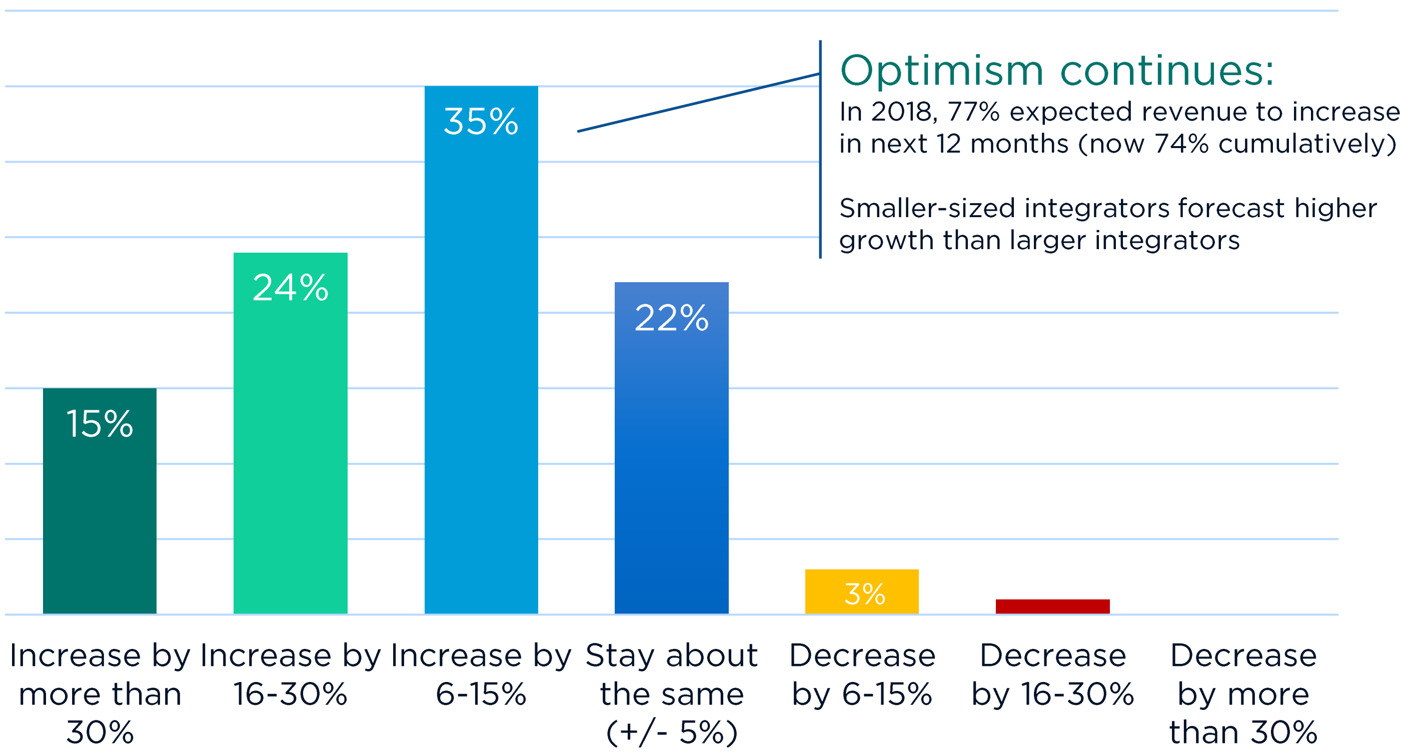
- ✓ Most projects include networking
- ✓ Growth forecasts are strongest for Lighting/Shading and Lighting Control segments in the US market

Avg # of Projects (among those that participate in the category)	Last 12 Months	Next 12 Months	Anticipated Growth %
Home Networking	51	61	20%
Audio Systems	38	46	21%
Integrated Control Systems	31	37	19%
Media Rooms	27	33	22%
Security Systems	21	25	20%
Outdoor A/V Systems	20	25	25%
Lighting Control Systems	18	25	39%
Lighting/Shading	18	24	34%
Dedicated Home Cinema	9	11	23%
Overall # of Projects per Year	70	84	20%

Today's largest revenue contributor is expected to continue growing

Growth Forecast

How do you expect revenue to change over the next 12 months?

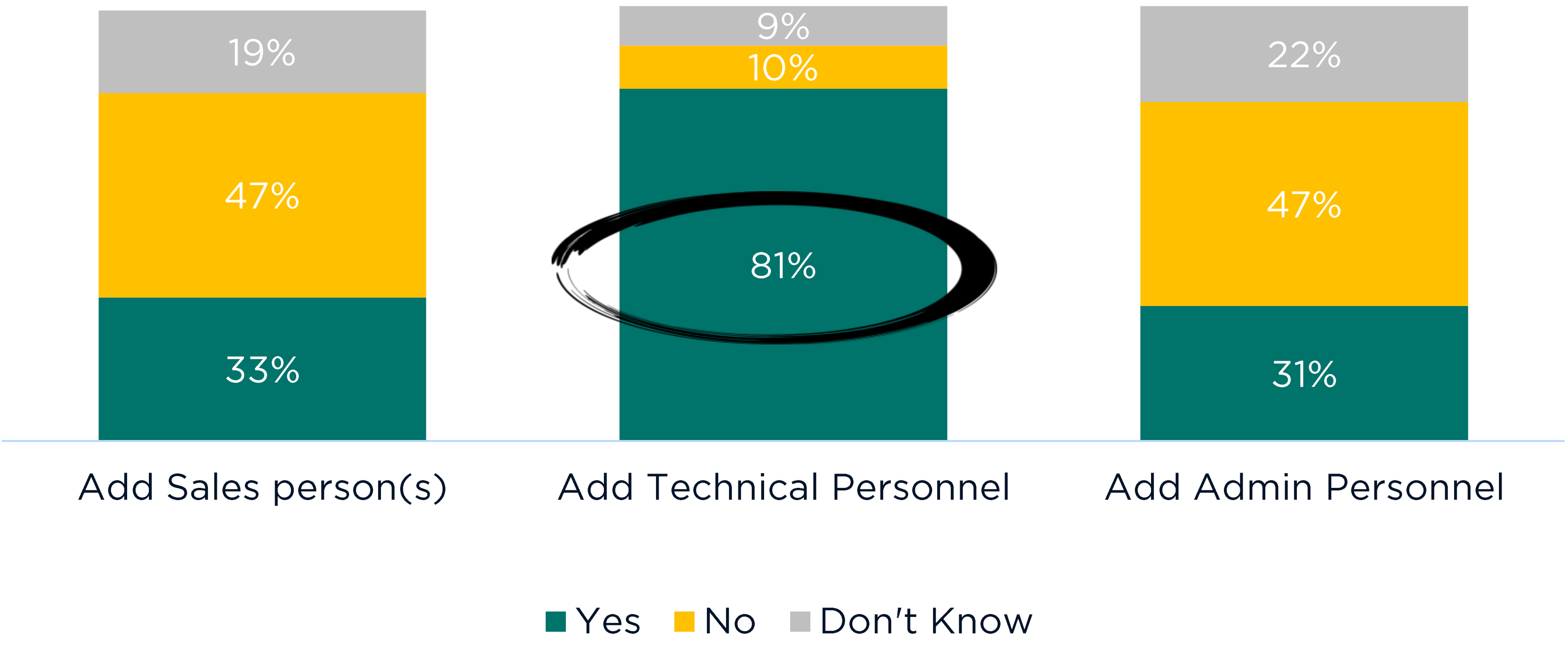


2020-21 Integrator Revenue Growth Forecast by Company Size	
Large-sized Integrators ($3M+ in Revenue)	10%
Medium-sized Integrators ($1-3M in Revenue)	20%
Small-sized Integrators (< $1M in Revenue)	32%

Growth & Resources

- ✓ Most integrators anticipate adding a technical resource in the next 12 months
- ✓ One-third anticipate adding to sales and/or admin teams as well

Do you anticipate that your company will grow in the next 12 months to the extent that you will add the following resources?...



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Market Segmentation

Integrator Profile

93% of the companies responding are **System Integrator / AV Installer companies**

(3% are electrical contractors, 3% cable/satellite/ aerial installers)

Long Tenure: 76% have been in business 10+ years

(13% have been in business less than 5 years)

Most commonly service **luxury** (79%) and **mid-market** (40%) customers

(17% serve Uber-luxury market, 6% serve Mass market)

On average, 83% of revenue is from residential projects, up from 77% in 2018

(Potential COVID-impact of home investment)

All research participants are purchase decision makers for their business

(60% are the sole decision maker for their business)

Three-quarters of responses are from CEDIA members

(One-fourth of responses are from non-CEDIA members)

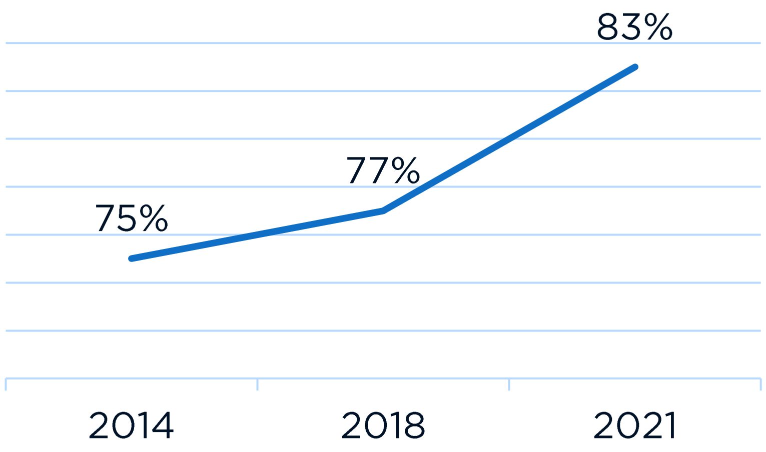
Residential Focus

On average, 83% of revenue is from residential projects, up from 77% in 2018

(Potential COVID-impact of home investment)

Trending Over Time

% of Revenue that is Residential



"During the stay-at-home portion of the pandemic, customers had plenty of time to decide where to spend money on their home technology."

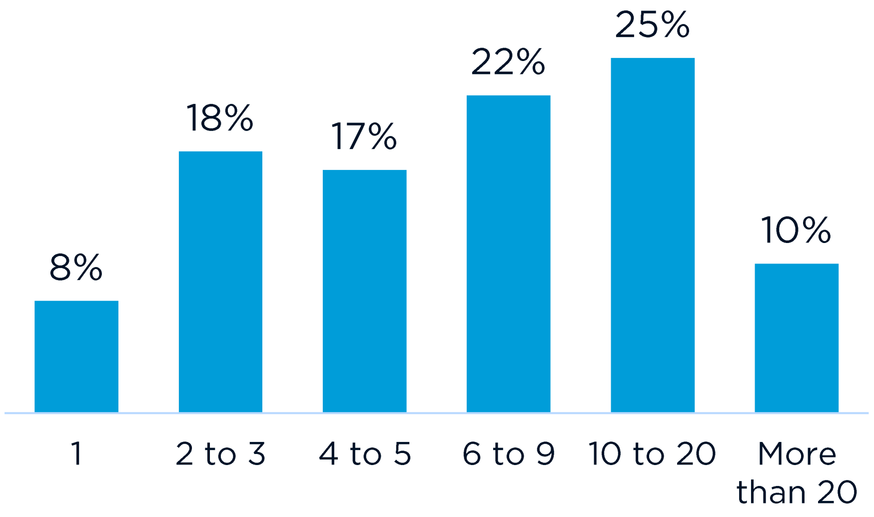
"More focus on better networks and better entertainment within the home as people have spent more time at home."

Company Size & Scope

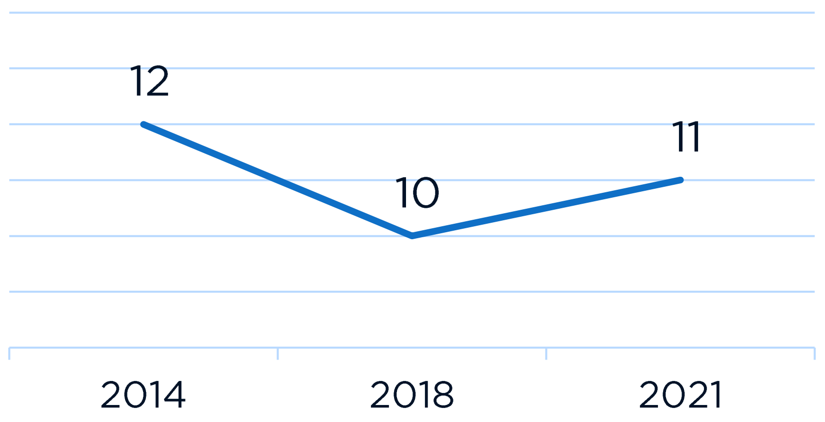
- ✓ While company size varies considerably, the average US integrator has 11 employees
- ✓ Average number of employees has remained similar over time

Average # of Employees in 2021	11
Median # of Employees in 2021	7

Number of Employees (including owner)



Average Number of Employees: 2014 to 2021

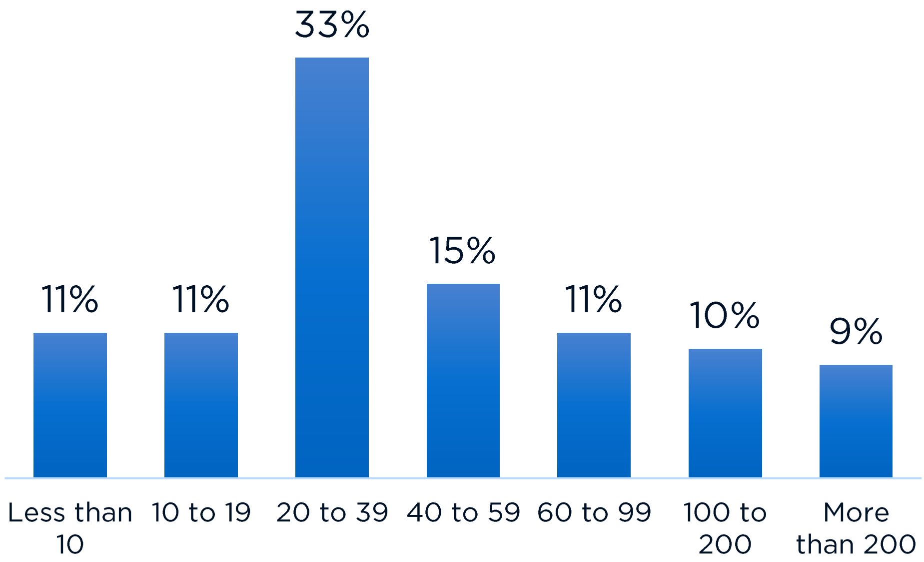


Company Size & Scope

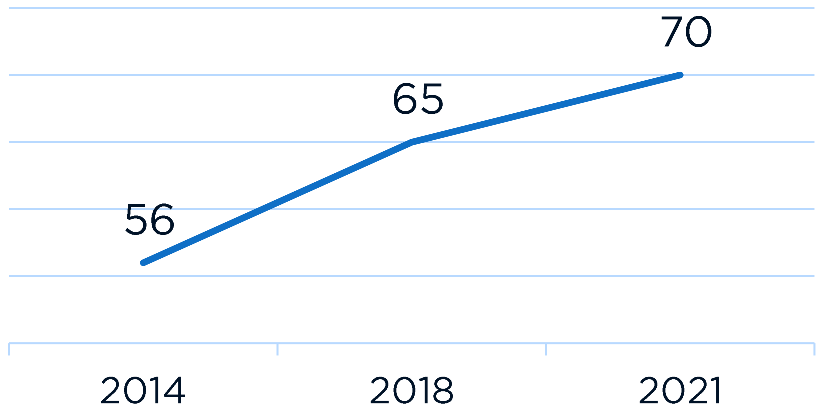
- ✓ Number of projects per year varies considerably in this industry
- ✓ Average number of projects has grown over time, despite no significant change in average company revenue or # of employees

Average # of Projects in 2021	70
Median # of Projects in 2021	30

Number of Projects Annually



Average Number of Projects: 2014 to 2021



Company Size & Scope

- ✓ Larger integrators are doing more projects per year and also larger-sized projects, on average

Average # of Employees	11
Median # of Employees	7

Average # of Projects	70
Median # of Projects	30

# of Employees (including owner)	Average # of Projects in last 12 months	Average Revenue in last 12 months	Average Project Size*
1	30	$340K	~$10-15K
2 to 3	25	$390K	
4 to 5	48	$900K	
6 to 9	60	$1.7M	~$20-25K
10 to 20	93	$2.3M	
More than 20	163	$9.4M	~$50K

*Average Project Size Calculation = Average Revenue X 83% (% of Residential Revenue on average for all integrators combined) / Average # of Projects

Workforce Size

# of US Integrator Companies	×	# of Employees Per Company	=	Estimated 2021 Workforce Size
~11,000		Mean: 11 employees		~120,000

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Voice of the Integrator

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From your vantage point as an integrator, what **changes do you see coming** over the next few years?

Voice of the Integrator

From your vantage point as an integrator, what **changes do you see coming** over the next few years?

*"I see the advent and influx of low voltage lighting fixtures and systems changing how the system integrator involves himself in the **high-end lighting industry**, not only taking responsibility for controlling the lighting within a space, but also specifying, procuring, prewiring infrastructure, and installing the fixtures. Essentially, taking a **more comprehensive role in the lighting system**."*

*"Large focus on **lighting control, fixtures and health & wellness products**."*

*"More and more homeowners will "cut the cord" and go to **"streaming-only" subscriptions** (such as YouTube TV, Hulu TV, etc.), as opposed to CATV/Satellite subscriptions."*

*"The willingness of consumers to accept the costs of a **properly designed and installed home network**."*

*"Whole-home control systems and **"smart" systems** will continue to increase in demand."*

Voice of the Integrator

From your vantage point as an integrator, what **changes do you see coming** over the next few years?

MORE OF…

- Lighting control and fixtures
- Networking
- Wellness
- Larger TVs
- Service/RMR focus

LESS OF…

- Less Distributed Video/Matrix setup (shift to streaming)

Integration/Control
Some expect growth and others predict less focus on integration. They talk about the rise in products becoming self-discoverable by consumers.

Voice of the Integrator

From your vantage point as an integrator, what **changes do you see coming** over the next few years?

*"I have found that **DIY products have taken over a lot of the smaller integration projects**, thus impacting income for smaller companies. Dealers and integrators need to get more involved with **luxury systems/devices** to integrate into more "financially successful" individuals' homes to keep up with the ever-changing market, however these changes need to be **backed by education**."*

*"**Battle over IoT and the DYI mindset**. Manufacturer partners continue to dismiss the value in small companies by raising quotas, minimums for free freight, and **allocations to larger dealers**."*

*"Greater degree of **automatic product discovery & integration** into automation systems such as Savant, Crestron, Control 4, less configuration for the integrator."*

*"More apparent control by customer. **Less complexity**."*

*"More houses being built having/needing some kind of **system as a standard**."*

Voice of the Integrator

From your vantage point as an integrator, what **changes do you see coming** over the next few years?

TRENDS

- **DIY trend continues**
- **SIMPLER solutions**
- Consolidation in manufacturers and perhaps within integrator community as well
- Labor shortage issues expected to continue
- Split vote on whether supply chain issues will improve over next year or not

FOOD FOR THOUGHT

(less frequent mentions)

- Energy management
- SaaS model for home technology
- Voice control
- 5G
- Outdoor
- Shading
- Geofencing
- Simulators / VR
- New construction opportunities

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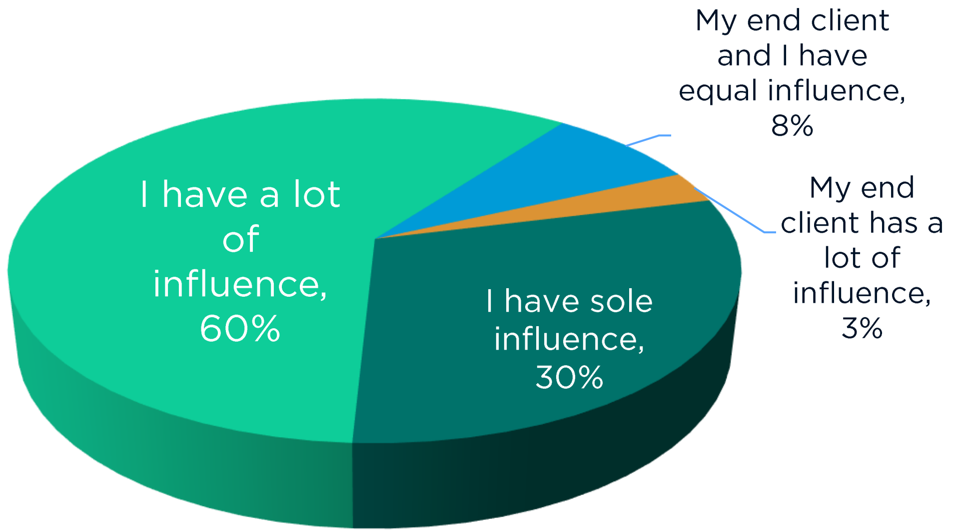
Brand Rankings

Brand Influence

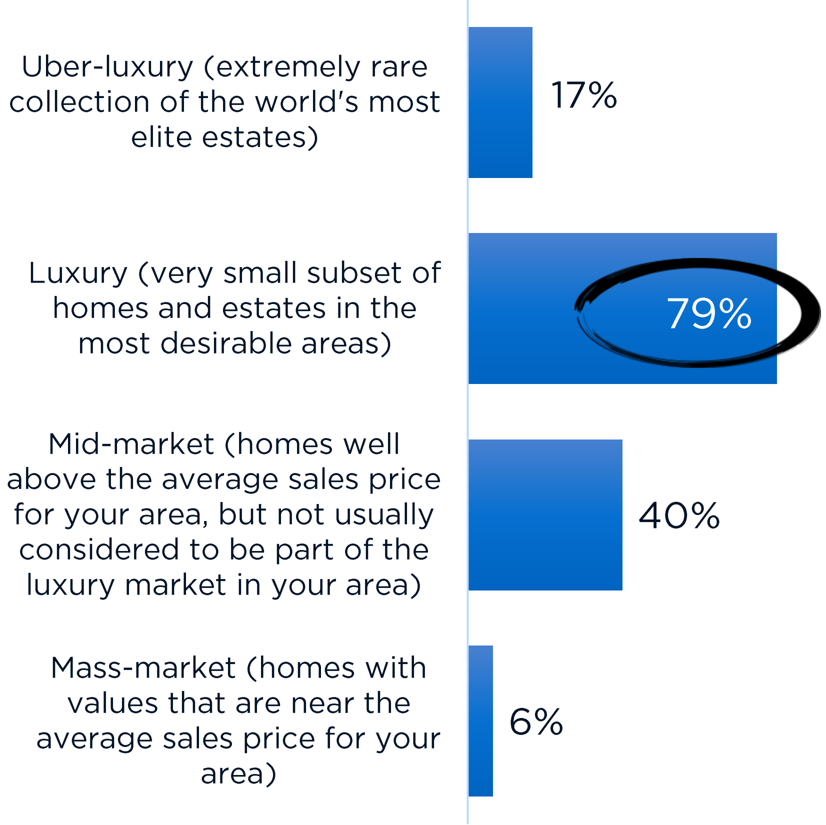
- ✓ Integrators play a dominant role in brand selection, with 60% saying they have “a lot” of influence and 30% with “sole influence”
- ✓ Integrators provide brand recommendations to many luxury-level clients

Integrator Influence on Products Selection



Note: Nobody responded that the client has “sole influence” on product selection

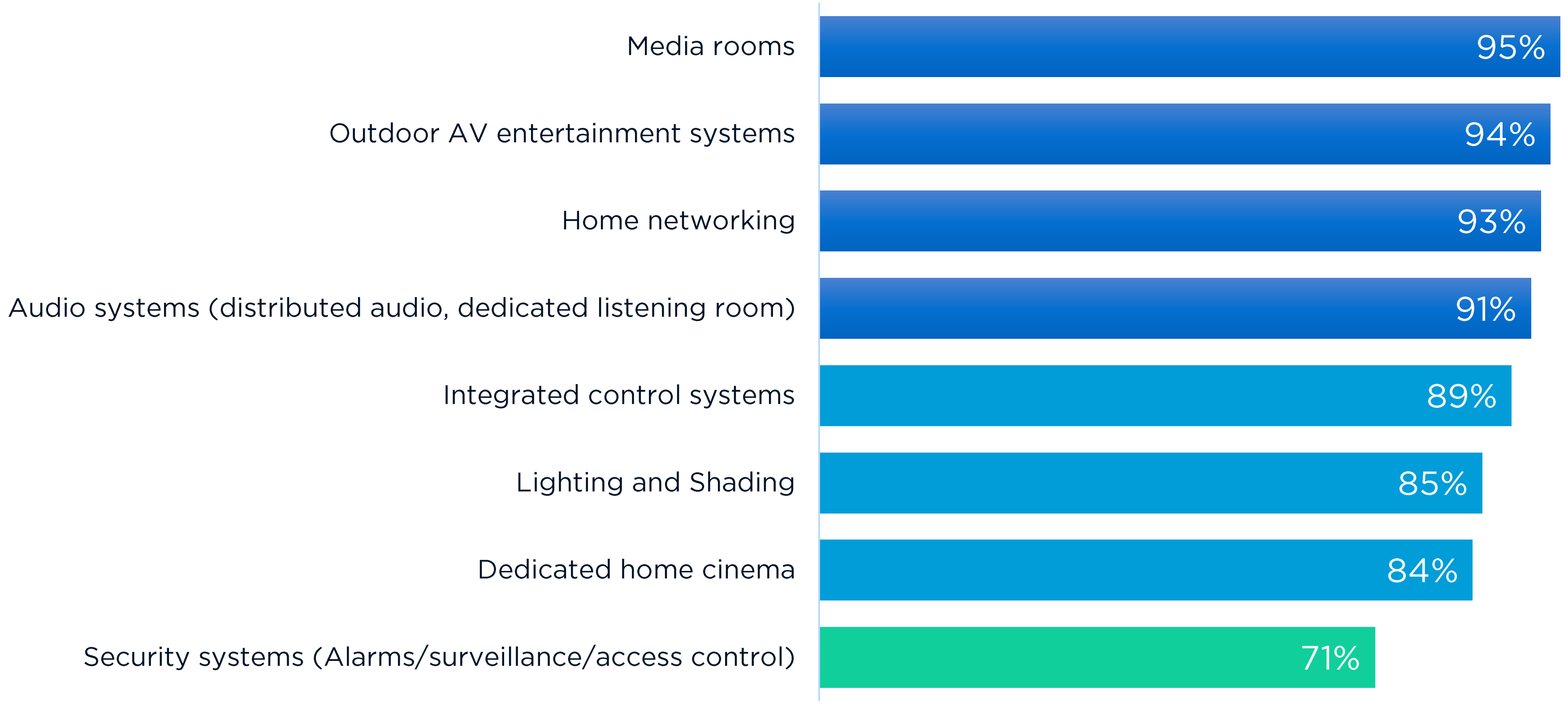
Markets Served



Category Participation

- ✓ US integrators work within a broad spectrum of home technology categories

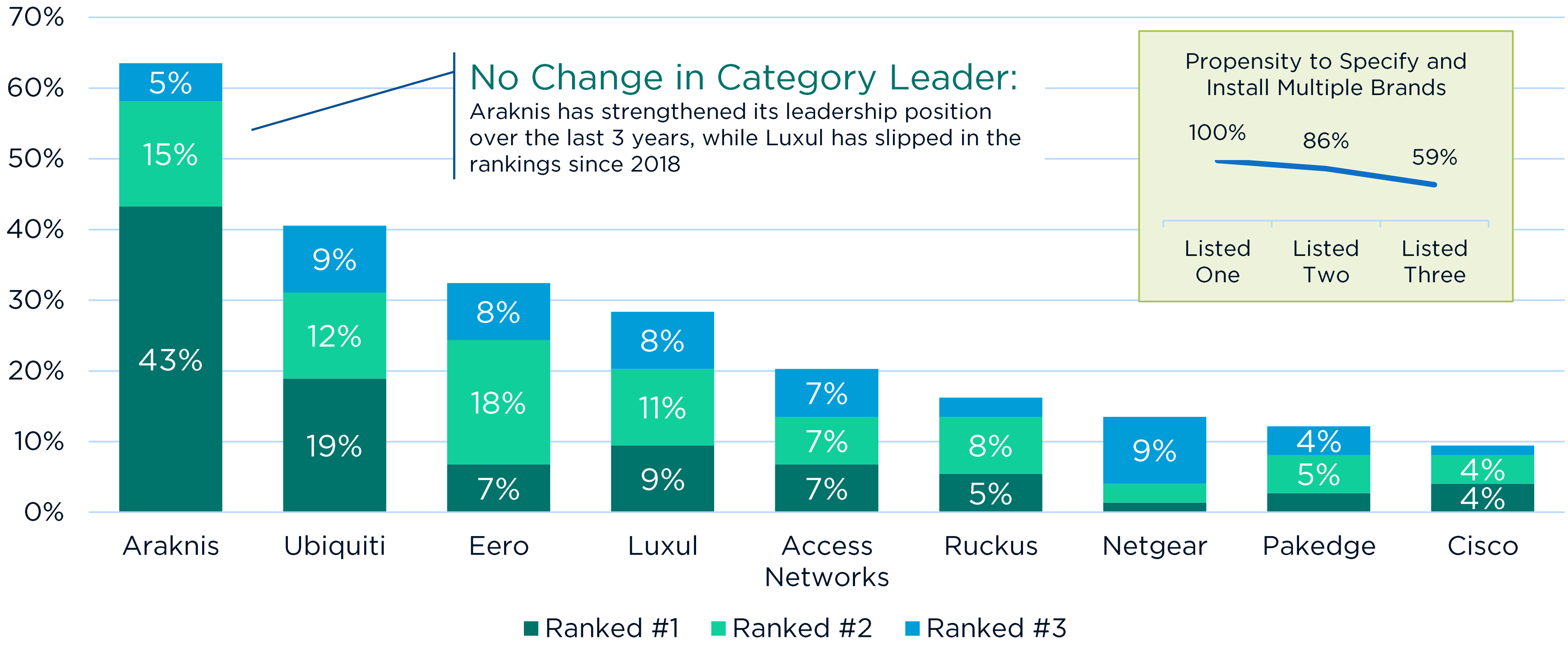
Residential Installs Self-Performed in Last 12 Months (% participating in each category)



Home Networking

- ✓ Araknis is the most specified home networking brand, with 43% ranking as #1 and two-thirds placing in their top-3
- ✓ That said, most integrators use multiple brands and other leaders include Ubiquiti, Eero and Luxul

What are your company's most specified and installed brands for home networking equipment?

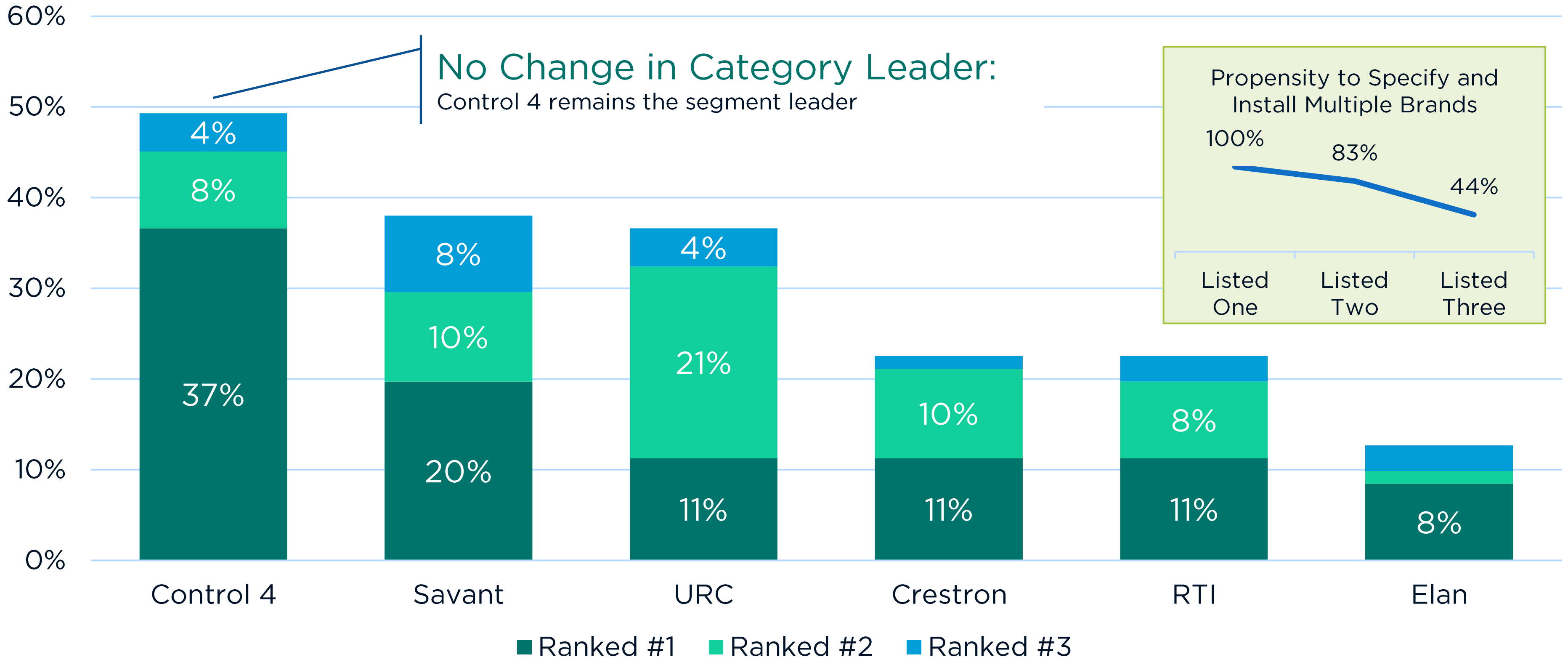


N=74

Control Systems

- ✓ Control 4 is ranked as the #1 most specified and installed brand by 37% and is placed in the top 3 by half of integrators
- ✓ Many integrators only use one or two brands in this category

What are your company's most specified and installed brands for whole-house integrated control systems?



N=71
Other write-ins: Lutron (10% mentioned), Josh.ai (7% mentioned)

Whole-House Integrated System Installations

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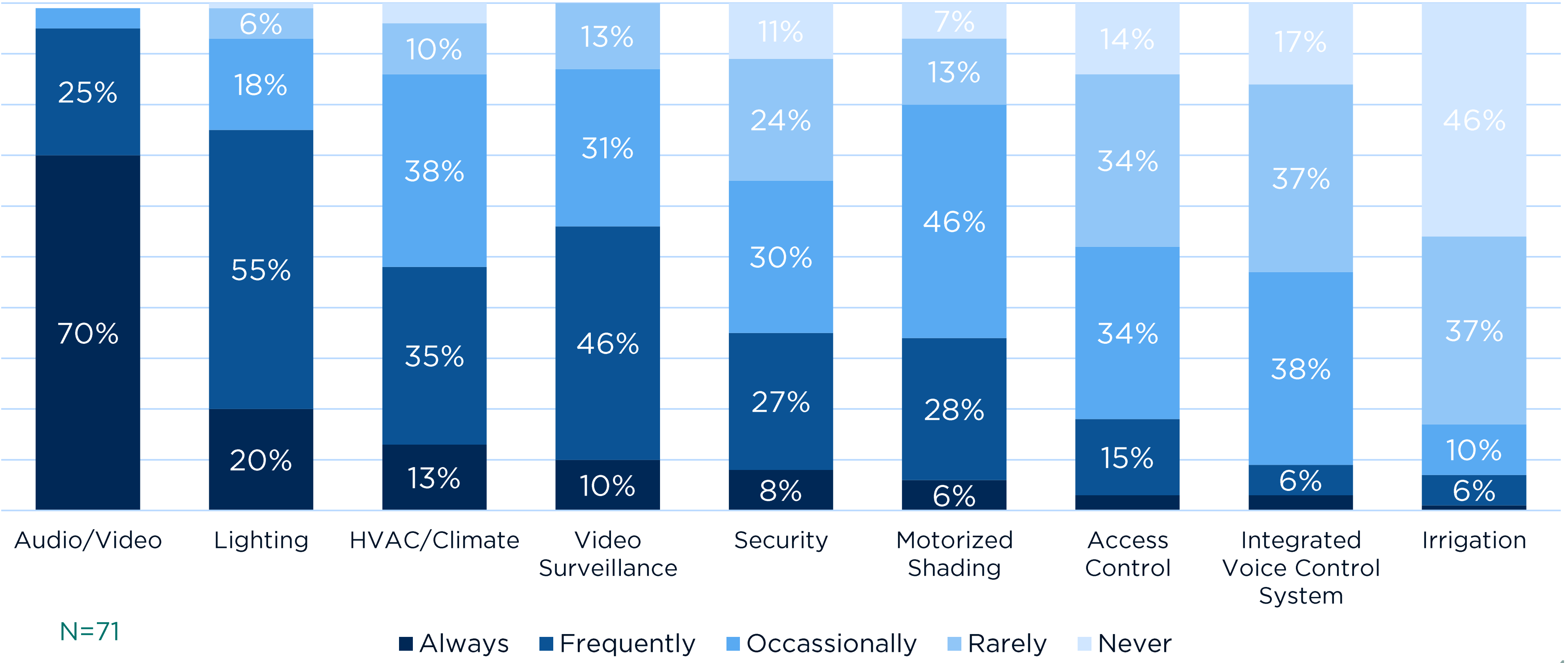
- ✓ Control system installations frequently include A/V and lighting
- ✓ Roughly half say that installs frequently include HVAC and Video Surveillance
- ✓ Irrigation and voice control components are rare

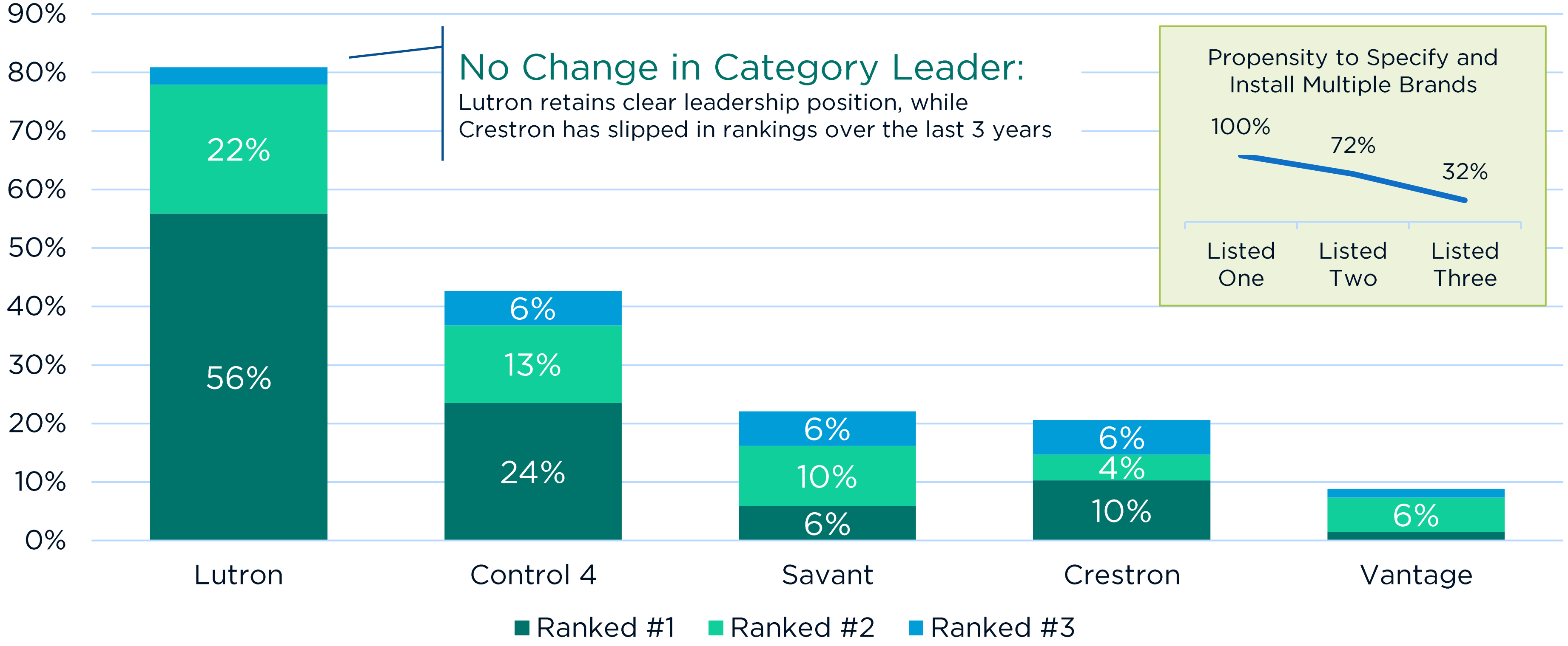
Of the whole-house system installations completed over the last 12 months, how frequently were the following included...



Lighting Control Systems

- ✓ Lutron is the top brand specified and installed for lighting control
- ✓ Many integrators only use one or two brands in this category

What are your company's most specified and installed brands for lighting control systems?



N=68

Shading and Motorized Window Treatments

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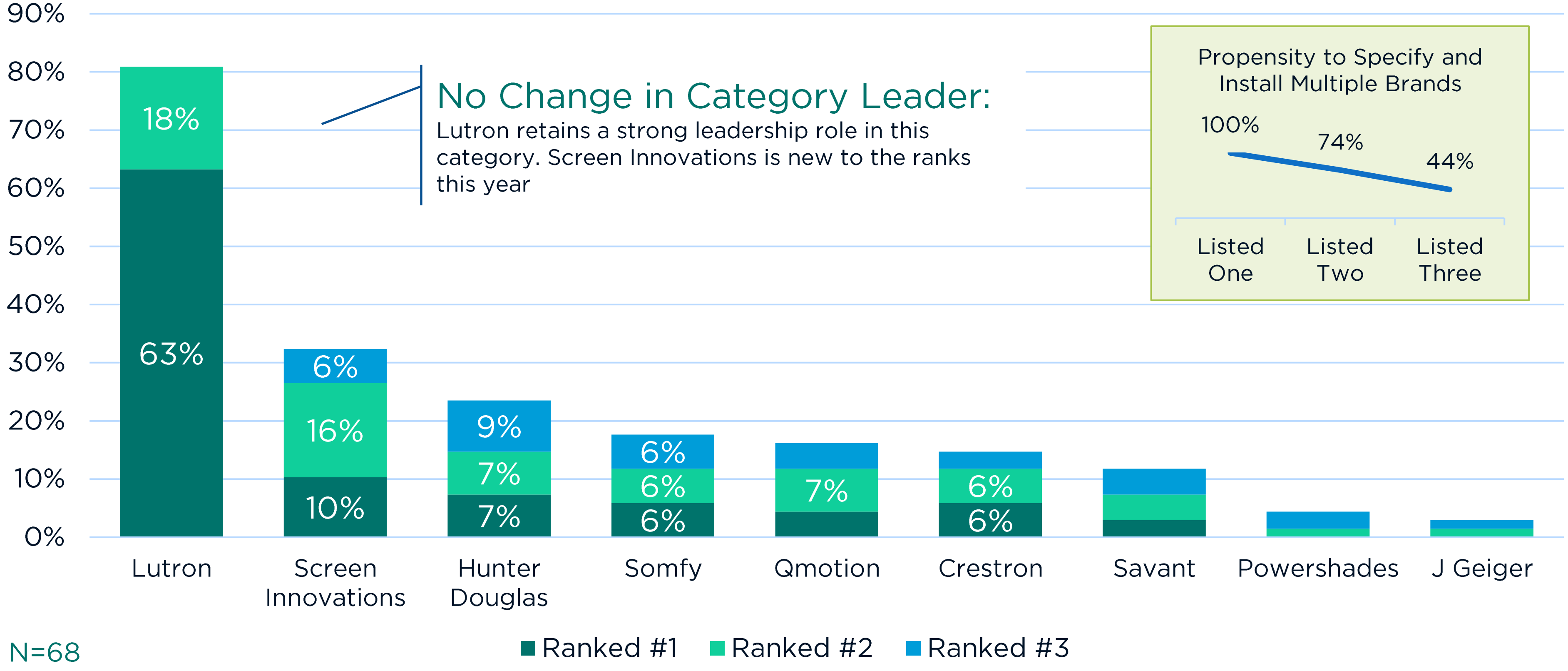
- ✓ Lutron is the most specified brand for shading/ motorized window treatments, by a wide margin
- ✓ Many integrators only use one or two brands in this category

What are your company's most specified and installed brands for shading/motorized window treatments?



N=68

Audio Electronics (Amp, Receiver)

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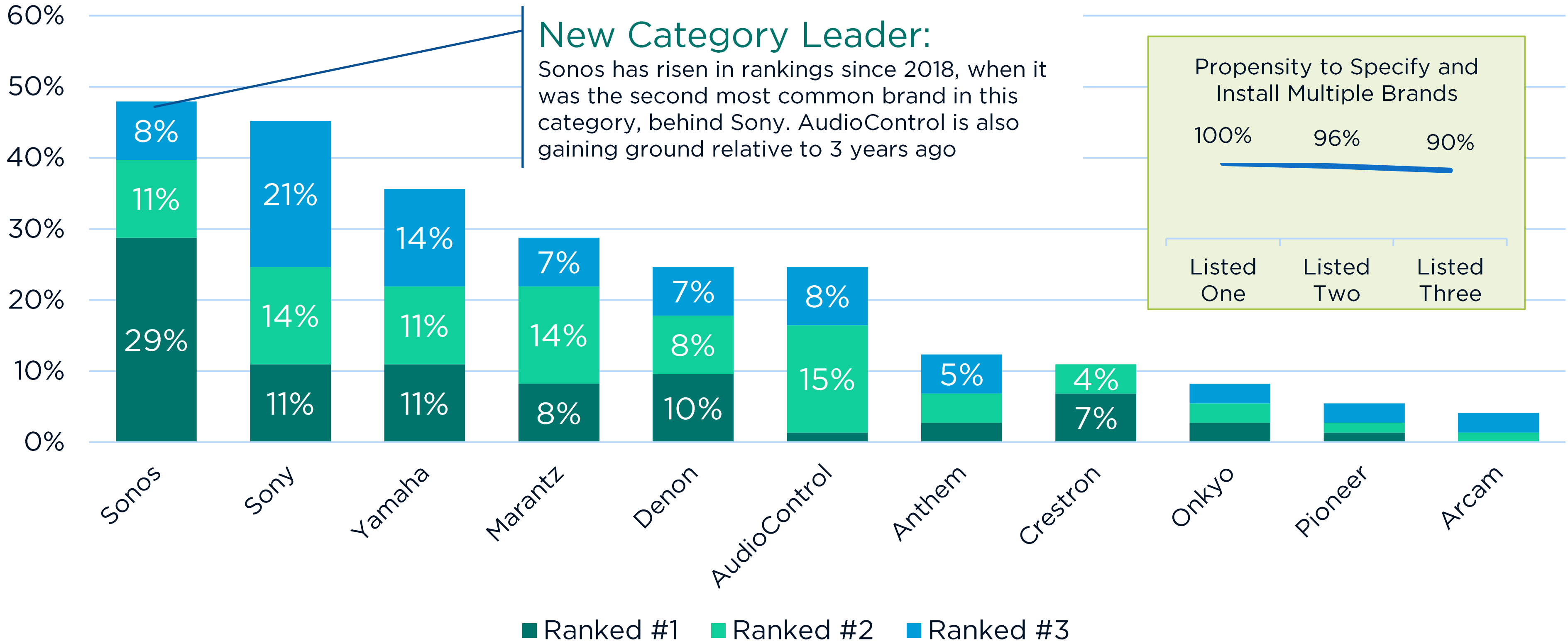
- ✓ Sonos is the most specified brand in this category
- ✓ Sony, Yamaha Marantz and Denon are also commonly specified
- ✓ Most integrators use 3 or more brands in this category

What are your company's most specified and installed brands for audio electronics (amplifier / receiver)?



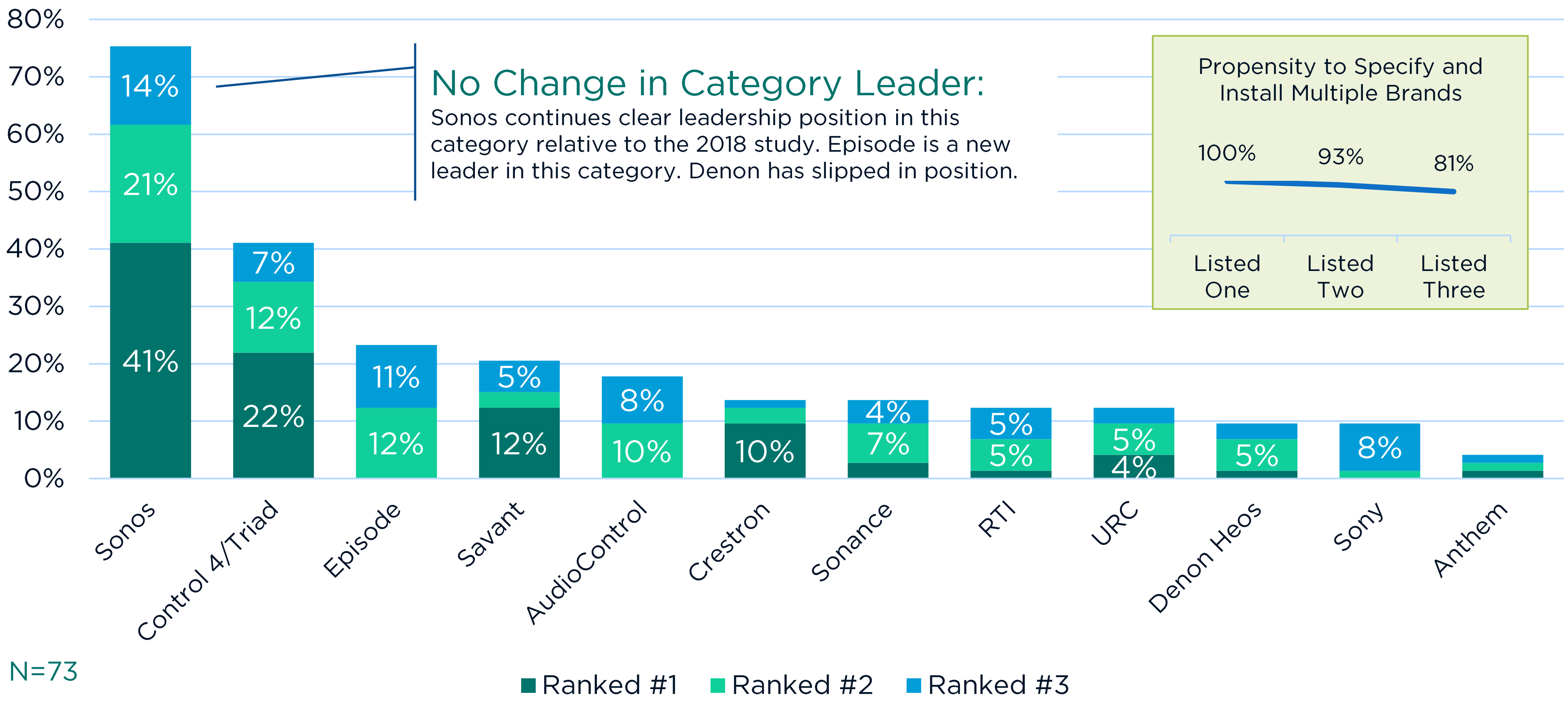
N=73

Other write-ins: Triad (5% mentioned), Savant (5% mentioned)

Audio Distribution and Audio Control

- ✓ Sonos is the most specified brand for Audio Distribution and Control
- ✓ Most integrators use at least 3 brands in this category

What are your company's most specified and installed brands for audio distribution / audio control?



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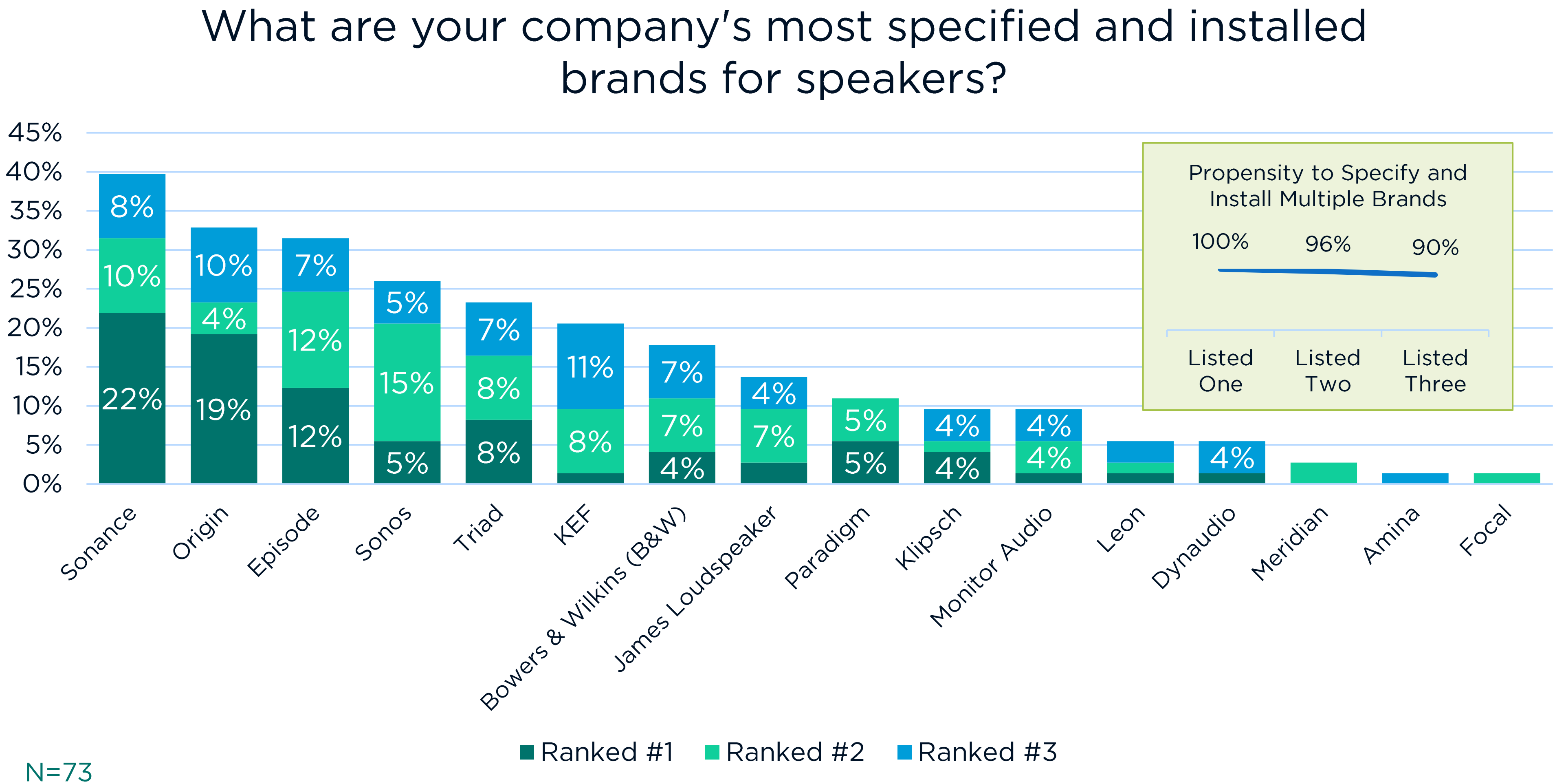
Audio Speakers

- ✓ This crowded category is led by Sonance, Origin and Episode
- ✓ Most integrators use 3 or more brands of audio speakers

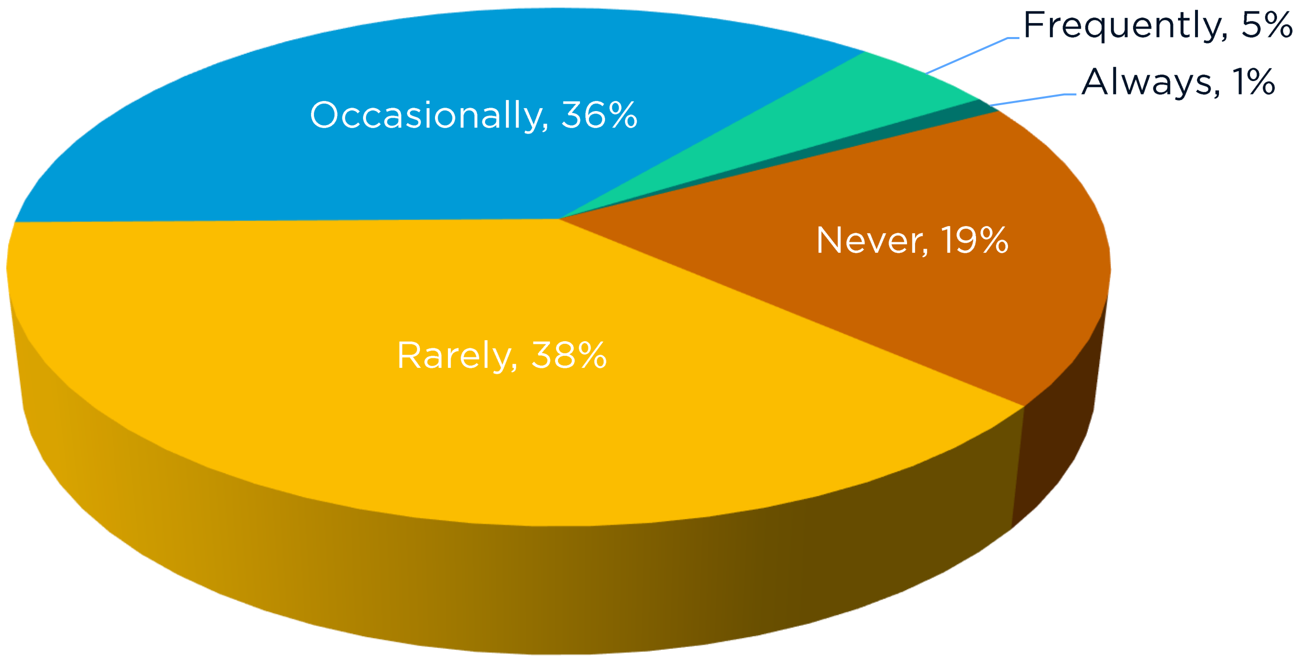


N=73
Other write-ins: Totem Acoustics (5% mentioned)

Voice-Enabled Speakers

- ✓ Voice is not strongly adopted in the US integrator market
- ✓ Only 6% say that they commonly include voice enabled speakers
- ✓ Over half say rarely or never

Thinking of the homes where you installed audio systems, how frequently was a voice-enabled speaker included?

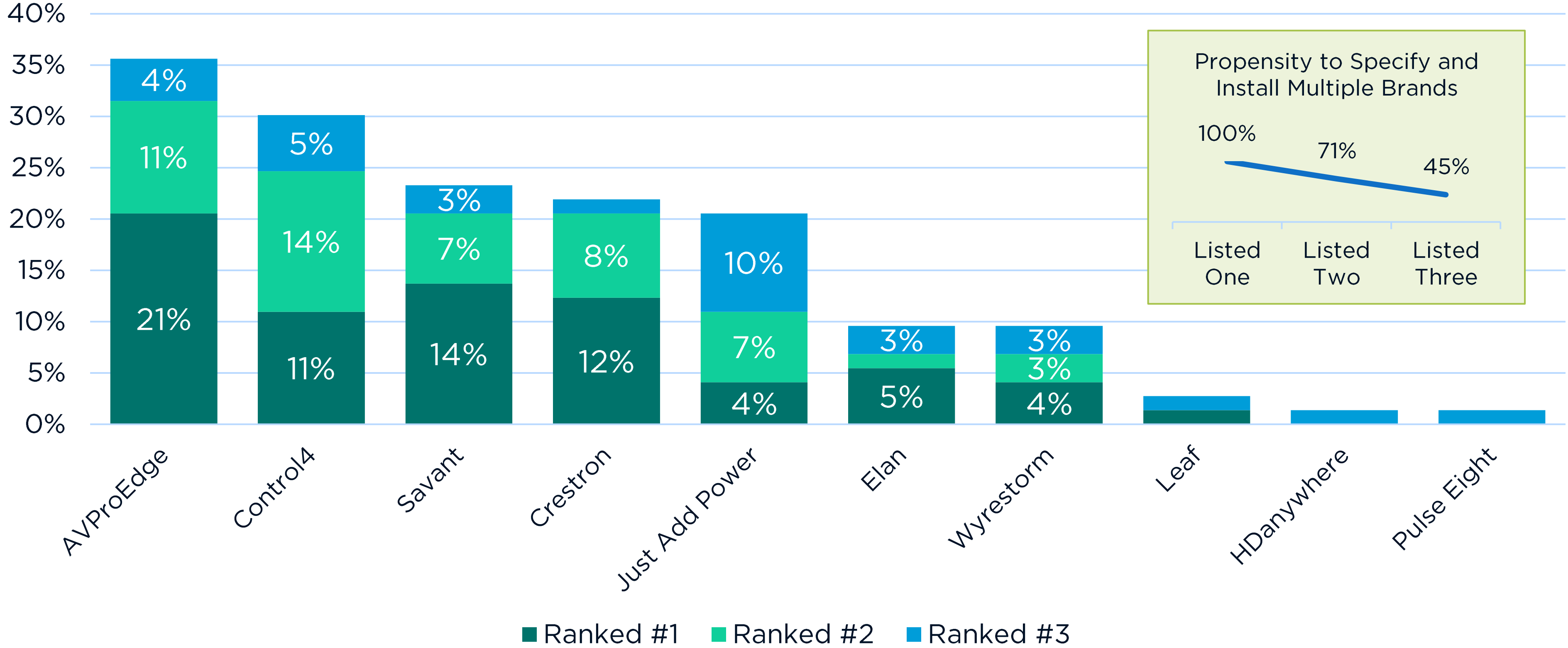


N=73

Video Distribution

- AVProEdge is the most commonly specified video distribution brand
- Binary was written in as an "other response" by 25% of integrators
- Half only use 1 or 2 brands in this category

What are your company's most specified and installed brands for video distribution systems?

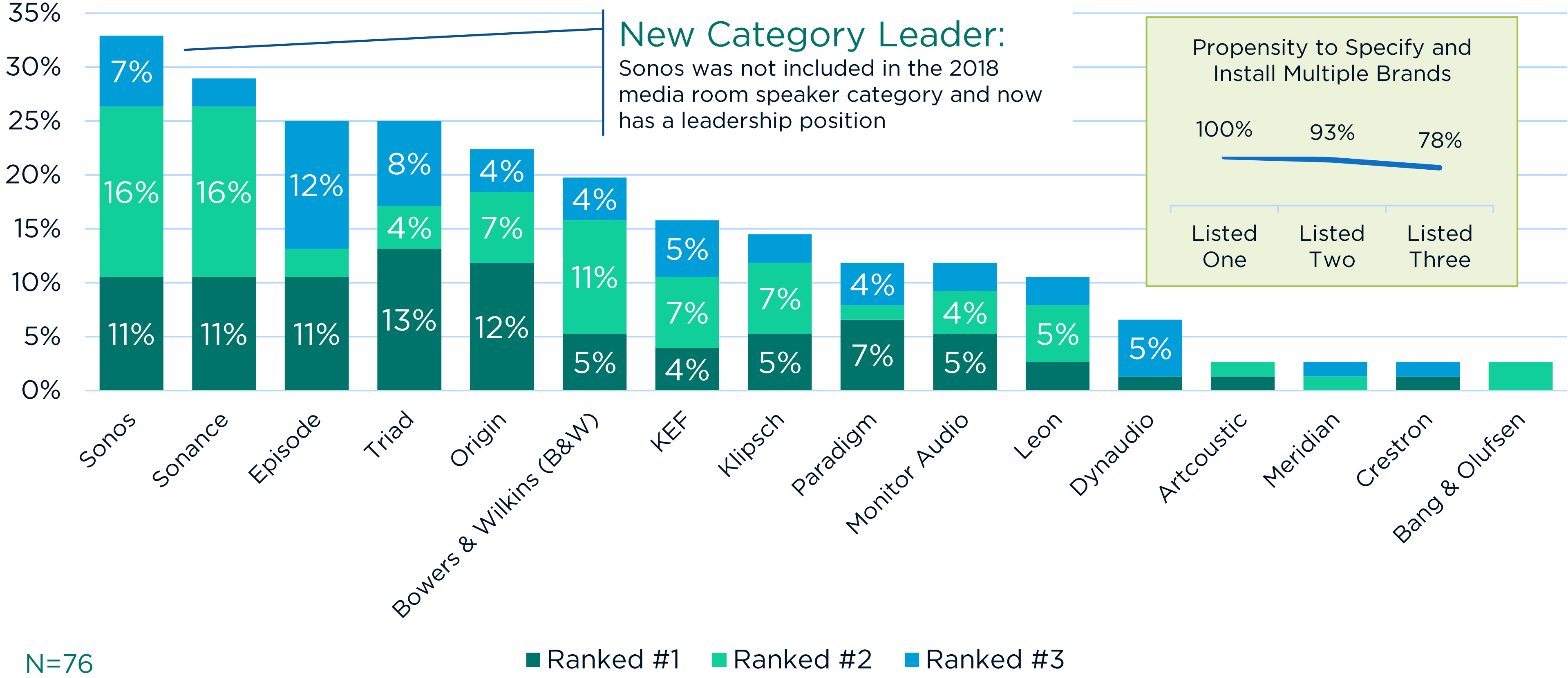


N=73
Other write-ins: Binary (25% mentioned), Atlona (10% mentioned)

Media Room Speakers

- ✓ This crowded category is led by Sonos, Sonance, Episode, Triad and Origin
- ✓ Most integrators specify at least 3 brands in this category

What are your company's most specified and installed brands for speakers to accompany a media room system?



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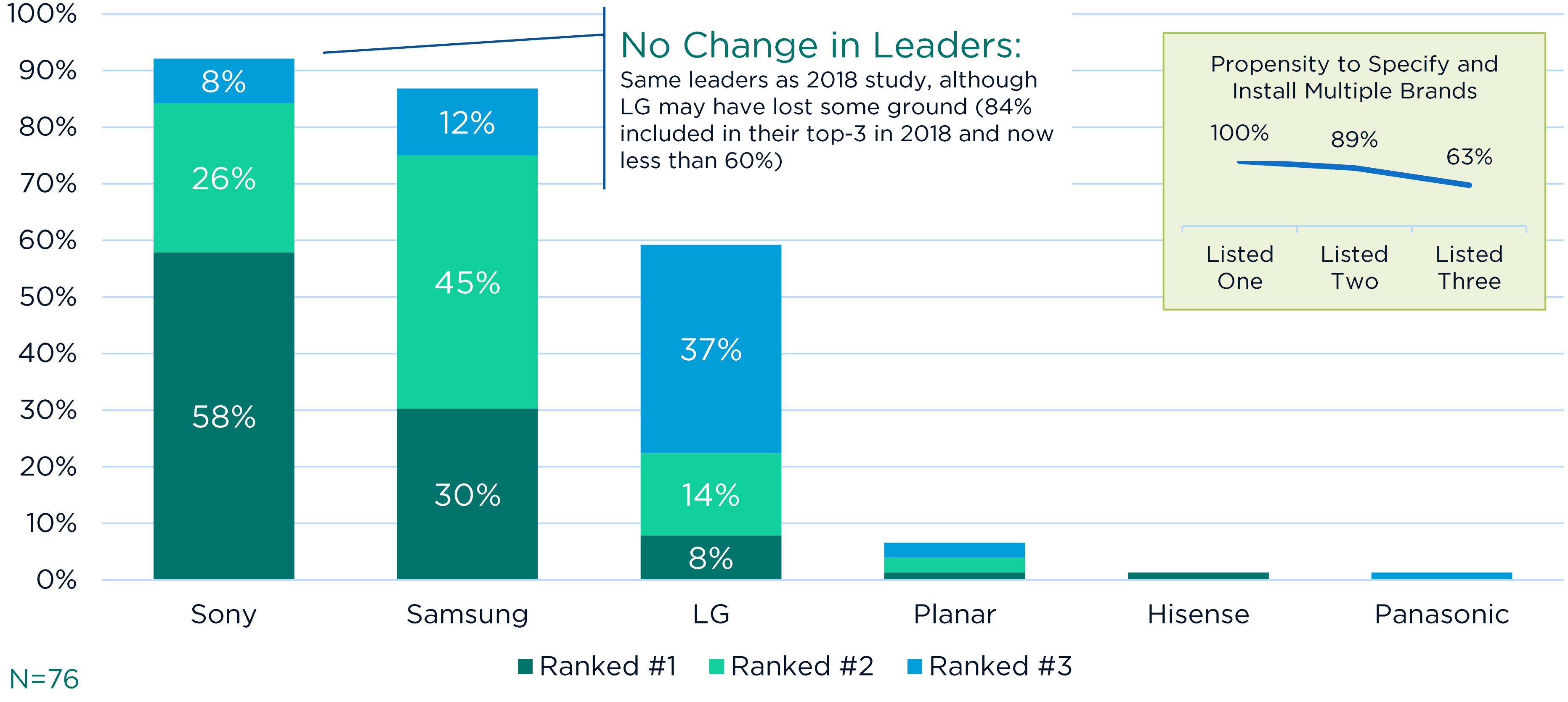
Media Room
Flat Panel Displays

- ✓ 58% rank Sony as their #1 most specified media room flat panel display brand and 90% put in their top-3
- ✓ Samsung and LG are also clear category leaders
- ✓ Most integrators specify all 3 brands

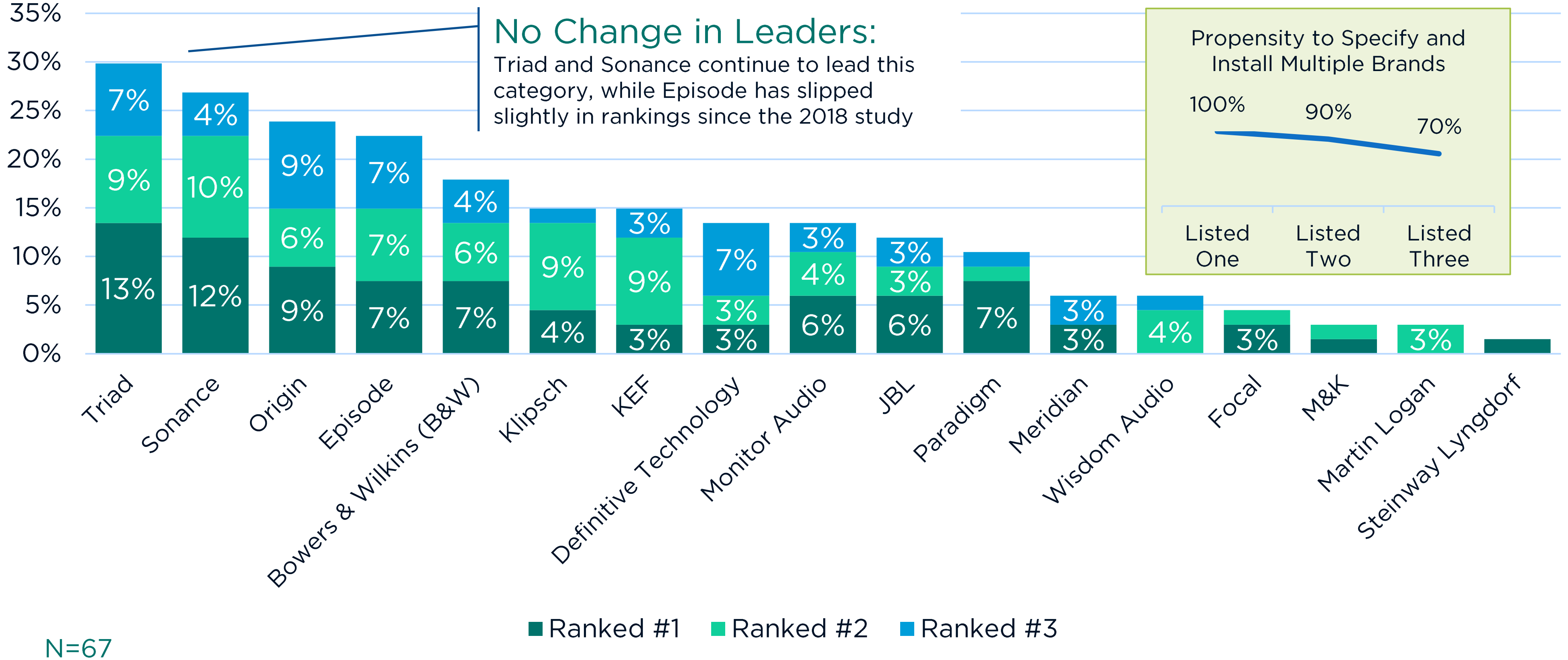
What are your company's most specified and installed brands for flat panel displays for media room jobs?



Dedicated Home Cinema Speakers

- ✓ The crowded home cinema speaker category is led by Triad, Sonance, Origin and Episode
- ✓ Most integrators specify at least 3 brands in this category

What are your company's most specified and installed brands for speakers to accompany a home cinema system?

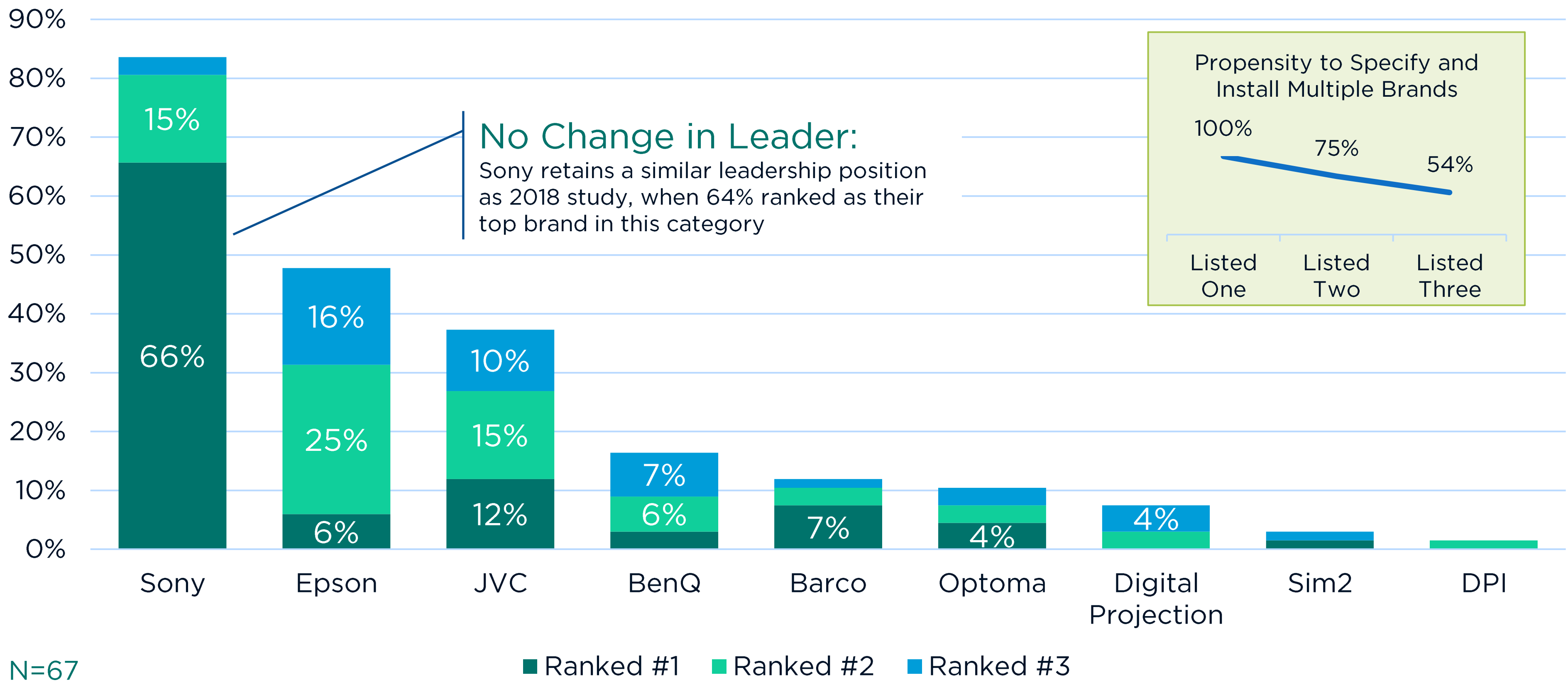


N=67
Other write-ins: James Loudspeaker (6% mentioned)

Dedicated Home Cinema Front Projectors

- ✓ Sony is the clear leader for home cinema front projectors, with two-thirds ranking as #1 most specified
- ✓ Half of integrators only use 1 or 2 brands in this category

What are your company's most specified and installed brands for front projectors on home cinema jobs?

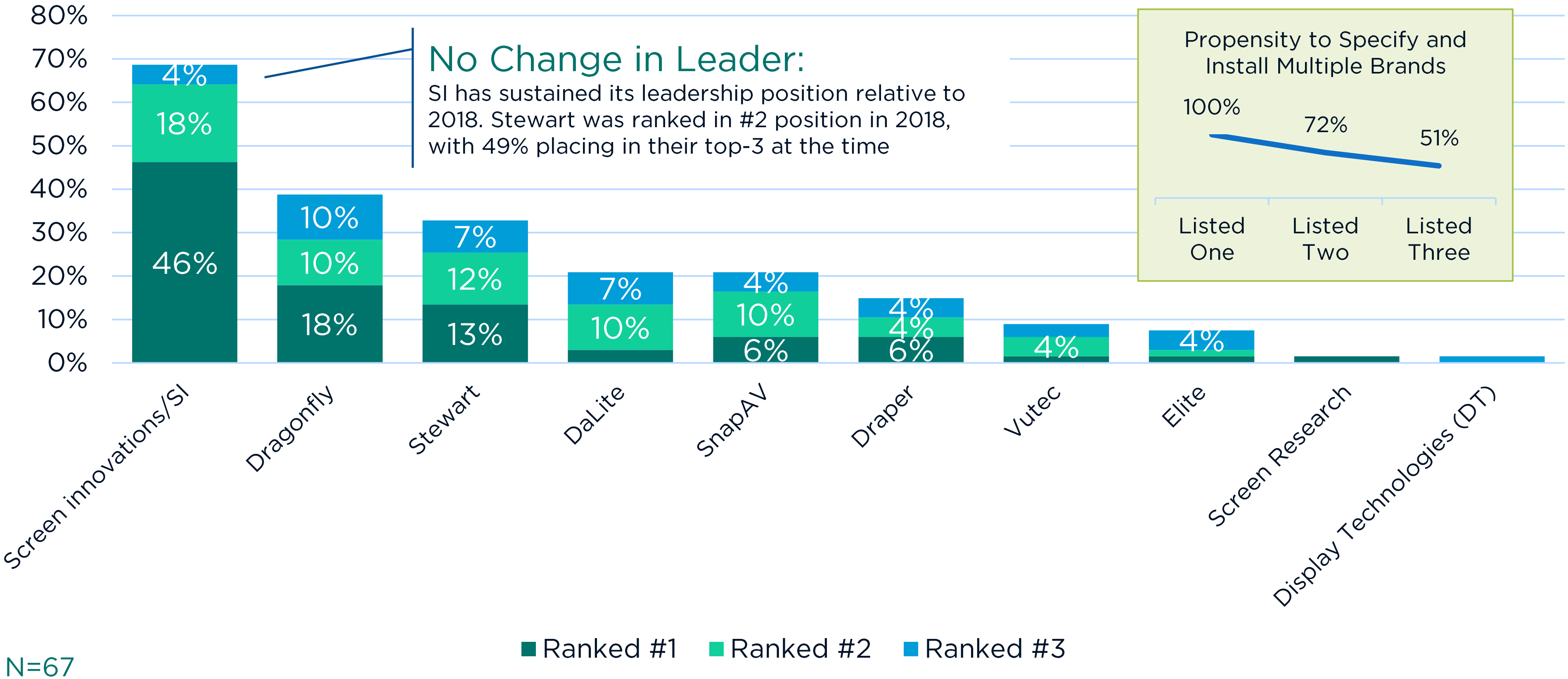


N=67

Dedicated Home Cinema Projector Screens

- ✓ Screen Innovations is the most specified and installed home cinema projector screen brand
- ✓ Half of integrators only use 1 or 2 brands in this category

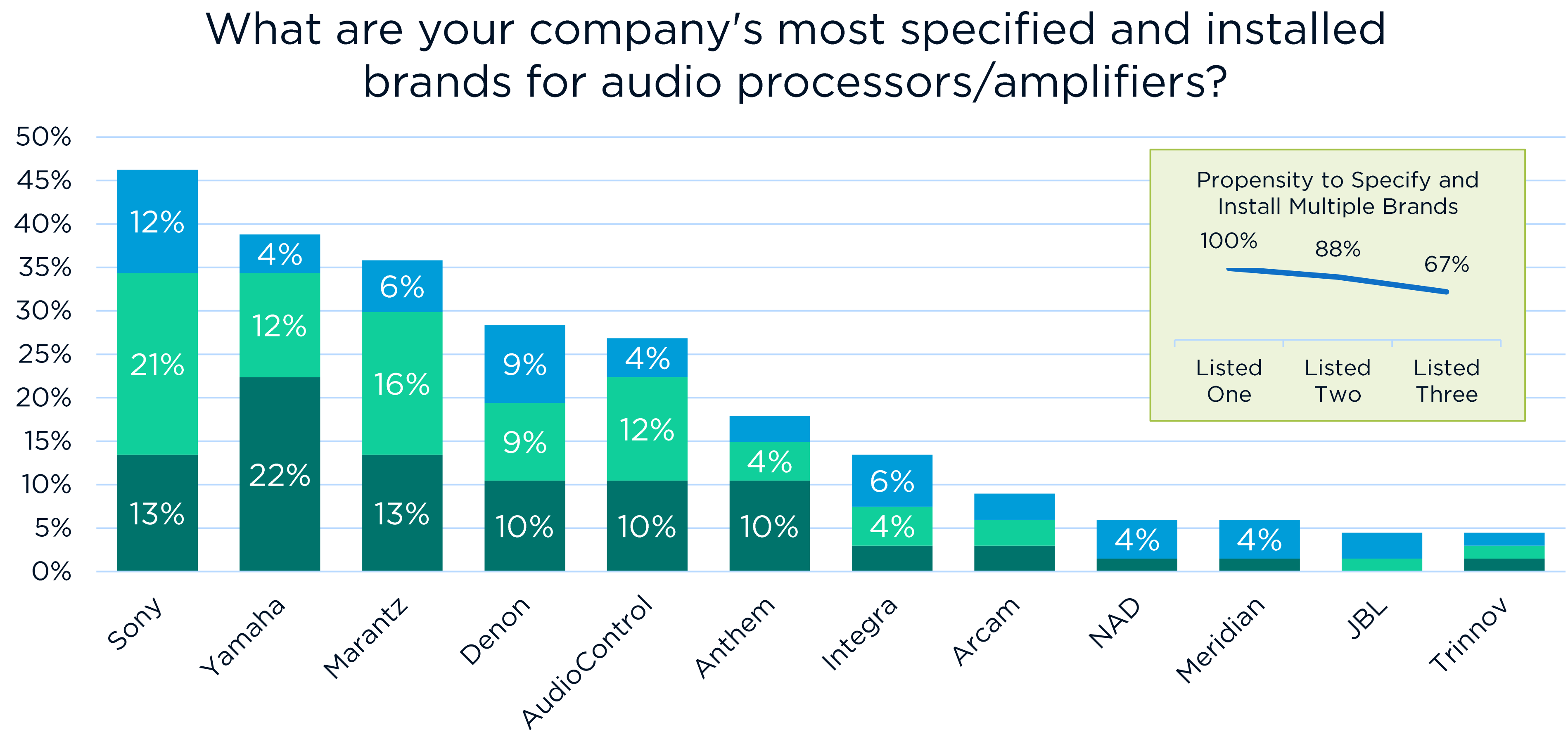
What are your company's most specified and installed brands for projector screens on home cinema jobs?



N=67

Dedicated Home Cinema Audio Processors/Amps

- Sony, Yamaha and Marantz are the most specified brands for home cinema audio processors/amps
- Most integrators specify at least 3 brands in this category

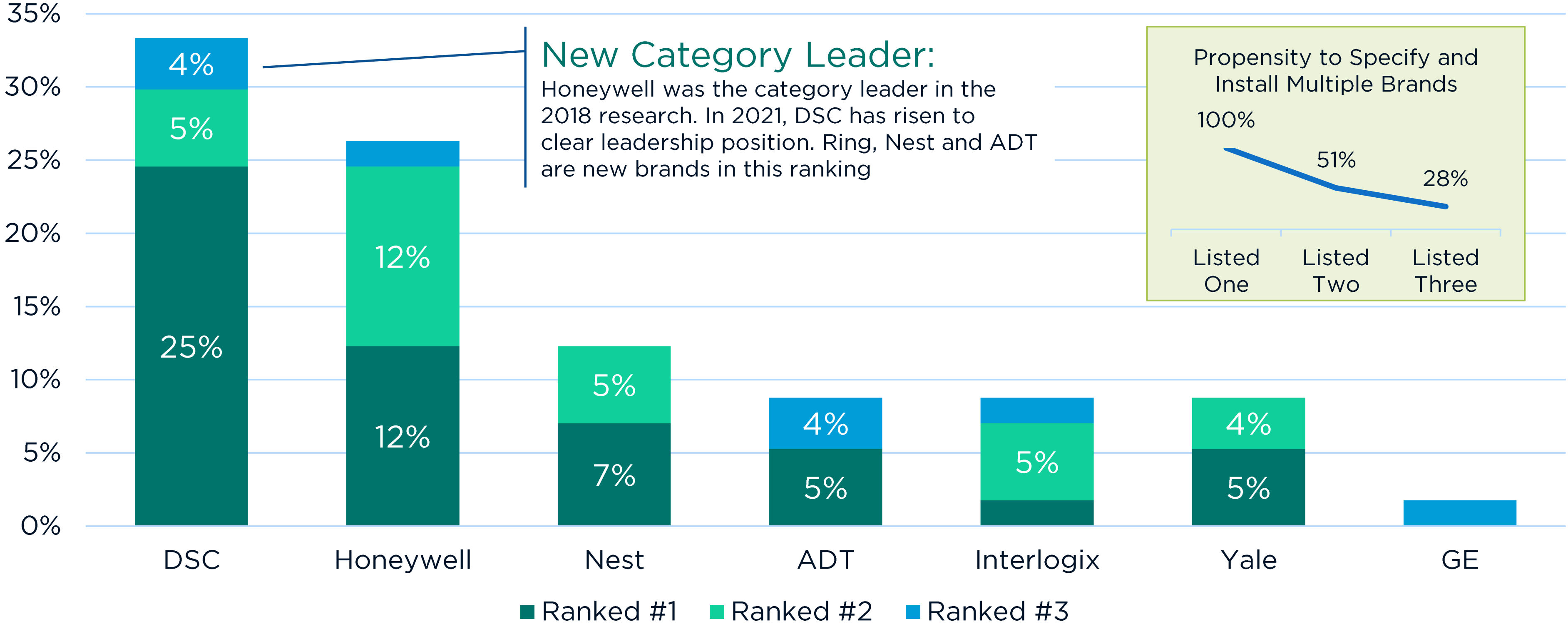


N=67

Home Security

- ✓ DSC and Honeywell are the market leaders for Home Security
- ✓ Ring was written in as an “other response” by 18% of integrators
- ✓ Half of integrators only use 1 brand in this category

What are your company's most specified and installed brands for home security systems?



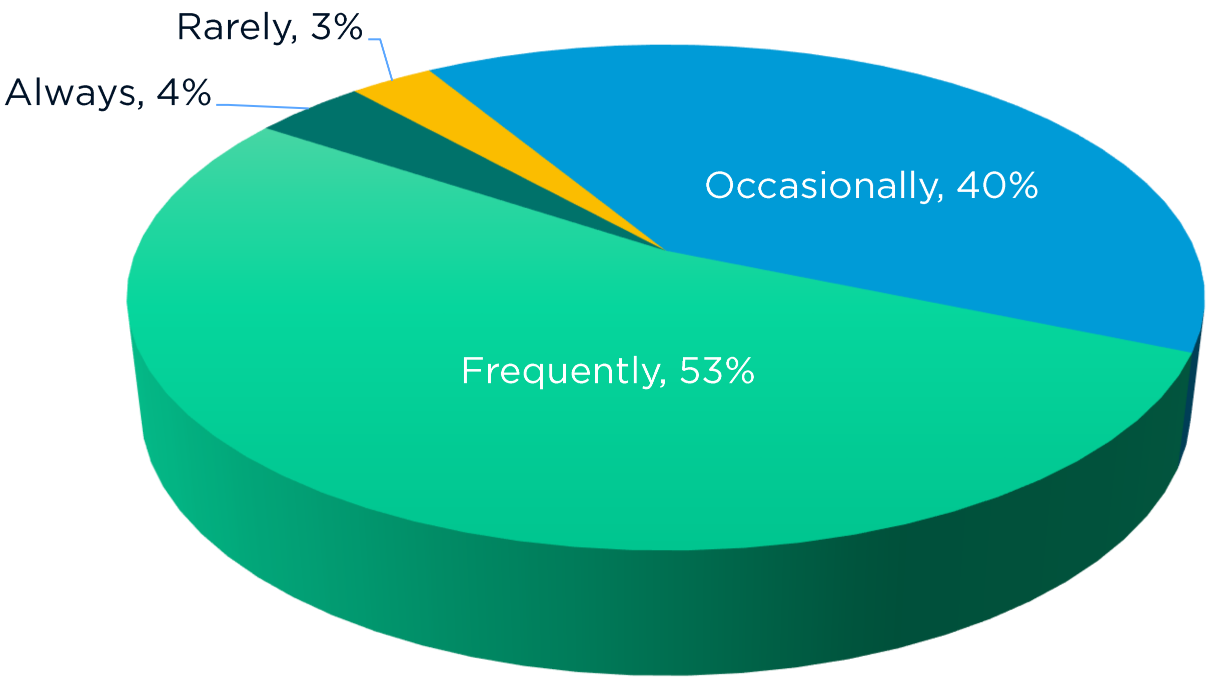
N=57
Other write-ins: Ring (18% mentioned), Elk (14%), Qolsys (9%), 2GIG (9%), Clare (7%)

Outdoor Entertainment

- ✓ Most integrators participating in this research said they install outdoor solutions
- ✓ 57% say their projects "always" or "frequently" includes outdoor
- ✓ Only 3% say it is rare, and nobody said "never"

Among integrators that install outdoor entertainment systems:

How frequently do your projects include some kind of outdoor solution as well?



N=75

INTEGRATED HOME MARKET ANALYSIS - 2021

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Recap of Key Findings

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Recap: Key Findings

Market Size:

- Approximately 11,000 integrator companies operating in the US
- Average annual revenue of $2.2M
- Average project size: $26K
- Estimated current US market size: $20.1B
- Bullish industry growth projections for the next 12 months

Market Segmentation:

- On average, 83% of revenue is from residential projects
- Number of employees commonly varies from 2 to 20 (avg: 11)
- Number of projects varies broadly by company size (avg: 70)
- 81% anticipate adding a technical resource in the next 12 months

Recap: Key Findings

Voice of the Integrator:

- Growth areas are lighting/shading, lighting control and networking
- Less distributed video/matrix setup (continued shift to streaming)
- DIY trend continues to put pressure on this market
- Trend toward 'simpler' solutions

Brand Rankings:

Brands most often specified and installed by integrators

Control4 | LUTRON | SONOS, YAMAHA, AVPro edge, SONY | SONY | araknis NETWORKS | SONANCE, ORIGIN ACOUSTICS, TRIAD, SONOS | SI | DSC

Questions?

Thank you!

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UK/US Market Comparison

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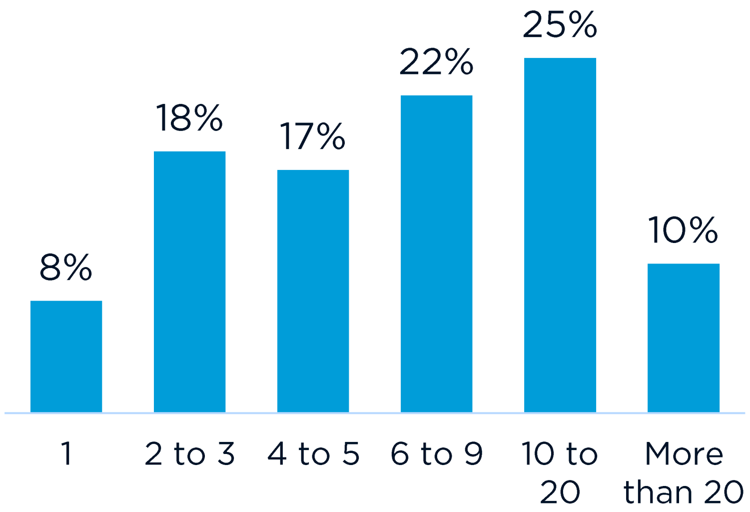
UK/US Comparison			Interpretation Notes
Estimated market size	£1.2B	$20.1B (~£15B)	US integrator market size is ~12x larger than the UK market (note: overall country population is ~ 40x larger)
Estimated # of Integrators	3,700	11,000	US has ~3x more integrator companies than the UK
Average annual revenue	£386K	$2.2M (~£1.7M)	Typical US integrator is ~4x the size of a UK integrator, in terms of both revenue and # of employees
Typical # of employees	3	11	
Typical % residential	86%	83%	% of residential work is similar
Typical # of projects/year	10	70	US integrators complete ~7x more projects per year
Average project size	£33K	$26K (~£20K)	UK average project size is larger by more than 1.5x
Top-5 categories with highest annual revenue contribution	• Control (20%) • Lighting/Shading (16%) • Home Cinema (12%) • Networking (11%) • Audio Systems (9%)	• Audio Systems (17%) • Control (14%) • Media Rooms (13%) • Networking (13%) • Lighting/Shading (12%)	By category, largest revenue contribution comes from integrated control in the UK and audio systems in the US
% anticipating growth	80%	74%	Both markets forecast high growth rates over the next 12 months, but in different areas
Highest growth areas	• Integrated Control • Security	• Lighting/Shading • Lighting Control	

Company Size & Scope

- ✓ Average number of employees for a US integrator is 11 (similar to prior research)
- ✓ Average number of projects has grown over time – from 56 in 2014, to 65 in 2018 to 70 in 2021

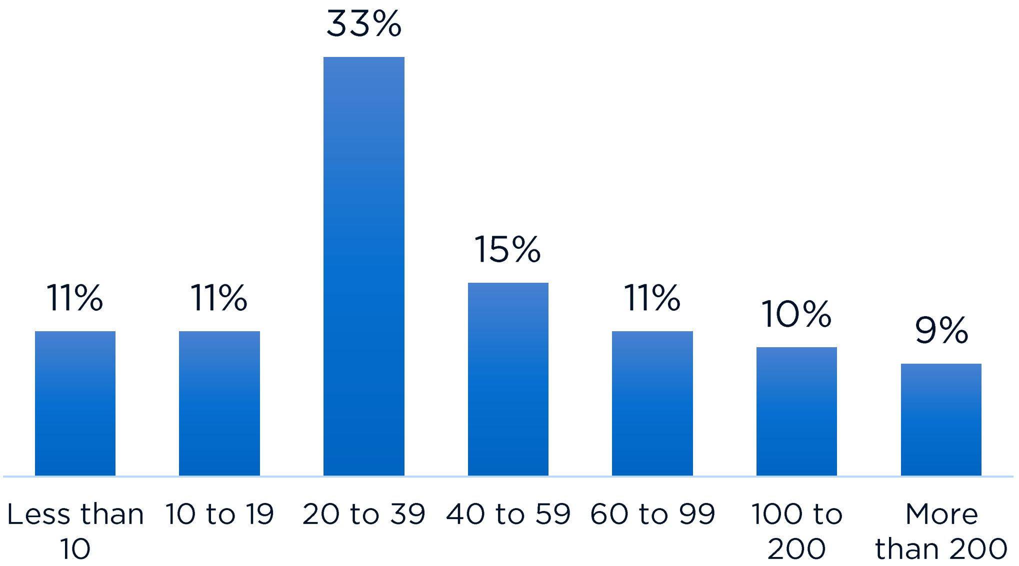
Median # of Employees	7
Average # of Employees	11

Number of Employees (including owner)



Median # of Projects	30
Average # of Projects	70

Number of Projects Annually



Glossary of Terms

Mean (or Average): Calculate by adding all numbers in a dataset and dividing by the number of values in the set. The mean represents the central tendency of the data and is the most common statistical measurement to summarize a dataset, but it is sensitive to outliers.

Average: Same as Mean

Median: The middle value when the data set is ordered from least to greatest. A median specifies where the center value is located in the dataset. It is useful to consider the median when the distribution of the data is skewed.