

AIRSHARK

IBTTA Maintenance &
Roadway Operations Workshop

May 16, 2016

WHAT'S AIRSHARK



UAV Flight Services Company

Full service UAV flight operator with a dedicated team of aviators and technologists.

Custom Hardware & Software Integrator

Quick turnaround prototype shop, with additional support from a leading UAV manufacturer.

AIRSHARK

Partnerships & Collaborators



MEDIA WING



JBI
HELICOPTER
SERVICES





An aerial LiDAR point cloud of an archaeological site. The terrain is rendered in a color gradient from yellow (low elevation) to red (high elevation). A prominent rectangular structure is visible in the center-right. A large, semi-transparent blue circle is overlaid on the left side of the image, containing the text 'DATA' and 'What can be captured?'.

DATA

What can be captured?

DATA TYPES



Geotagged Imagery

Geo-referenced still &
video



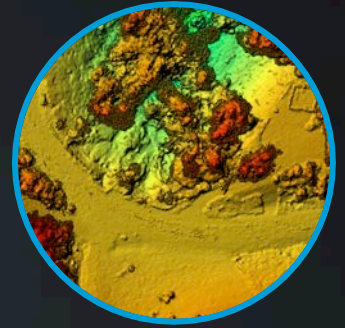
Orthophotos

High resolution
orthoimagery



Point Clouds

Photogrammetric
point clouds in
standard formats



Surface Models

Raster terrain data

June 25, 2015

July 21, 2015

Faster
Workflow

Great Brook July 2015 Storm Damage



A photograph showing two workers in orange safety vests and dark jackets. One worker is seated in the driver's seat of a vehicle, looking at a laptop screen. The other worker is standing outside the vehicle, leaning in and pointing towards the laptop. The scene is outdoors, with snow on the ground and trees in the background. A large blue circle is overlaid on the left side of the image, containing the text.

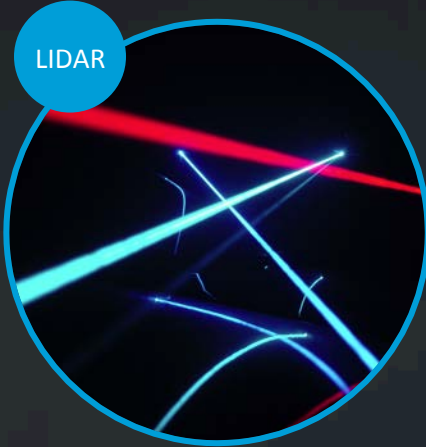
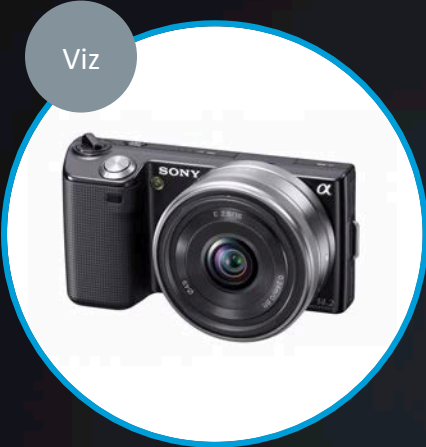
CAPABILITIES & LIMITATIONS

What can be captured?

SENSORS

Current

Future



VISIBLE

IR & MULTISPECTRAL

LIDAR

OTHER

High Resolution Still & Video

Thermal, Hyperspectral, & Multispectral

Cost, Weight & Power Requirements currently shrinking

Gas Detectors Your Sensor Here

CAPABILITIES

General Flight Considerations



WIND & PRECIP

UAV operations are best conducted on sunny or overcast days, when winds are $< \sim 15$ mph. Light precipitation is manageable, but avoided whenever possible.



MAPPING AREA

Most UAV can fly for 15 – 30 minutes, and by combining flights can cover from tens to hundreds of acres. Fixed wing UAS can cover more area per flight, and should be used for larger mapping projects.

CONDITIONS

Weather & Site Considerations



TERRAIN & OBSTACLES

Flat or rolling terrain with little tree cover is ideal for UAV mapping projects. Multirotors can operate out of smaller launch areas and operate closer to structures.



TEMPERATURE

UAVs can operate year round in almost any temperature, with the human operators being the largest concern. For most cases, use 0 – 100F as a guide.

OPERATIONAL CONSTRAINTS

Simplified Rules for Planning Purposes



LINE OF SIGHT

UAS must remain within the operator's line of sight, in case of emergency. This also means operations must be conducted between dawn and dusk.

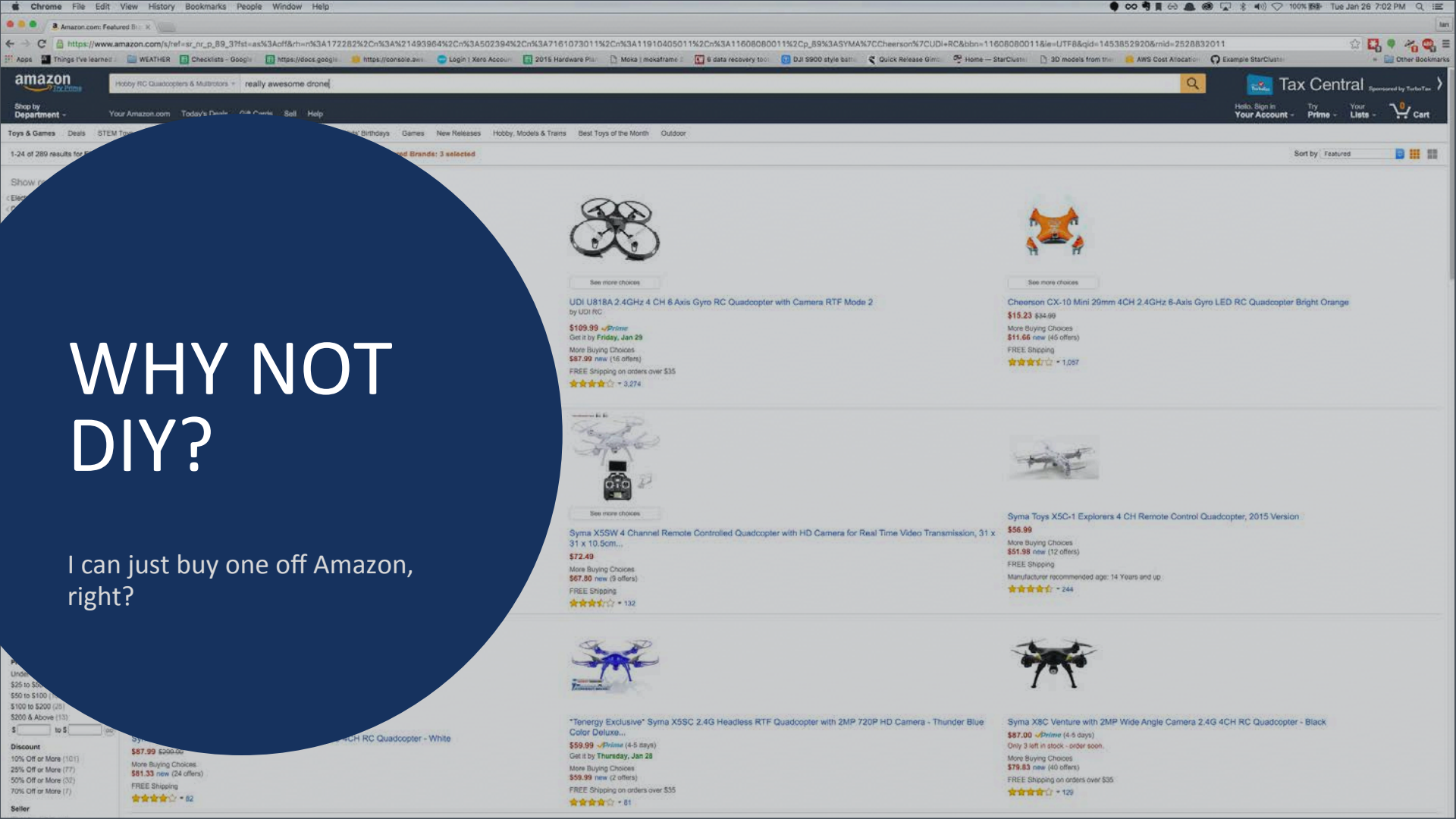


AIRSPACE

Except in special circumstances, commercial UAS must not operate within 5NM of an operating airport, and are generally limited to 400FT above the ground.

WHY NOT DIY?

I can just buy one off Amazon,
right?





WHY NOT DIY?

Experience



CHECKLIST

For Contracting UAS Operations

FAA Approval	Insurance & Safety	Experience	Processing
Section 333 Exemption	Adequate Insurance Coverage	Situational Awareness	Hardware
Pilot & Visual Observer	Safety Plan & Operational Checklists	Type of Aircraft	Software
Authorizations for Specific Airspace (COA)	Pre-Flight Briefing	Application Specific	Data Types



RESOURCES

For more information...



<https://www.faa.gov/uas/>

AIRMAP

<http://app.airmap.io>

AIRSHARK



MEDIA WING

<http://airshark.io>

<http://mediawing.com>

info@airshark.io



Q&A
TIME



**BACKUP
SLIDES**

ARE HAPPENING

Watch out!



©2013 Google - Map data ©2013 Tele Atlas Imagery ©2013 TerraMetrics

Stats

Area:	541011 m ²	Pictures:	91
Distance:	8.46 km	No of Strips:	10
Distance between images:	76 m	Footprint:	205.7 x 151.7 m
Ground Resolution:	5.06 cm	Dist between lines:	82.27 m

Simple

Simple Options

Camera Canon SX260-SX280

Altitude [m] 150

Angle [deg] 63

Camera top facing forward

Accept

Display

- Boundary
- Markers
- Grid
- Internals
- Footprints
- Advanced Options



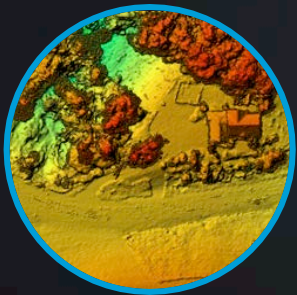
WHY NOT DIY?

Equipment



HARDWARE

UAS technology is rapidly evolving, with new hardware being released almost daily. Keeping up to date with the latest capabilities – not to mention maintaining the fleet you already own – is a time consuming task.



DATA PROCESSING

As with most professional software packages, training and licenses are a large investment. Service providers specialize in turning raw UAS data into standard GIS formats & organized reports, allowing you to focus on the big picture – not the minutiae.



SIX REASONS

TO PARTNER WITH US

b

WE UNDERSTAND

And have a pulse on the ever-changing needs of our clients

8

K

[



WE'RE LOCAL

With local staff and board members who have deep roots in the local business

a



5

>



K

WE INSPECT THE RESULTS

And create a control group for each campaign

9

\$

WE DELIVER PERSONALIZED SERVICE

Tailored to your charitable and financial interests



WE'RE A COMMUNITY LEADER

That supports high-impact opportunities

Z

WE'RE PROFICIENT

Our staff are expertly trained in the systems they use

S

Let's come & see

PRESENTATION SUMMARY



ABOUT US

our philosophy

Lorem Ipsum established fact that and web page editors now readable content of a page when looking at its layout.

Content here, making it look like readable English the point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using.

Publishing packages and you need to be sure there isn't anything default model text, and a search for 'lorem ipsum' will uncover many web sites still in their infancy.

ABOUT US

what we do

H

ADVERTISING

It is a long established of letters, opposed to fact that a reader sometimes by accident will be distracted by the at its layout.



WEB DESIGN

Many desktop publishing packages and web page editors now use Lorem Ipsum, will uncover many web sites still in their infancy.



PUBLIC RELATIONS

The point of using Lorem Ipsum is that it has a distribution of letters, opposed to using 'Content here, content here', making it look like.

G

SEO ANALYSIS

Various versions have evolved over the years, sometimes by accident, sometimes on purpose injected humour and the like.

ABOUT US

our mission



PROJECTING

It is a long established fact that a reader will be distracted.



PROMOTING

Content here, content here, making it look like fact reader.



PRODUCING

The point of using is that it has a distribution of letters, using.



SUPPORT

Publishing packages and you need to be sure there.

ABOUT US

objective

IT IS A LONG ESTABLISHED

fact that a reader will be distracted by the readable content of a page when looking at its layout.

VARIOUS VERSIONS HAVE EVOLVED

over the years, sometimes by accident, sometimes on purpose injected humour and the like.



OUR TEAM



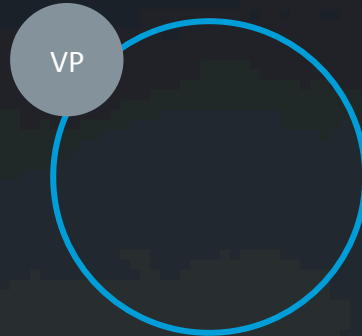
ROGER DOE
Executive director

Nam auctor will be
distracted by the readable
sites still justo entum.



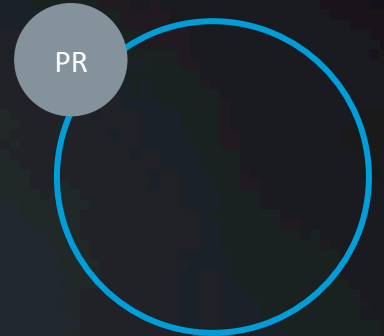
AMANDA DOE
HR manager

A distribution of letters,
opposed to using Nam auctor
justofermentum.



JOHN DOE
Service director

Will uncover many web sites
still am auctor fermentum.



JESSICA DOE
PR manager

Readable English the point
Lorem Ipsum Nam auctor
justof.



WE DELIVER PERSONALIZED SERVICE

Tailored to your charitable
and financial interests



OUR SERVICES

what we are strong

Service led delivery focused on a key ingredient of your organizational mix, a principal asset

DISCOVERY SERVICES



Various versions have evolved over, accident, on purpose injected humour and the.

TRANSITION SERVICES



Content here, making it look like readable English the point of using Lorem.

MANAGED SERVICES



Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using.

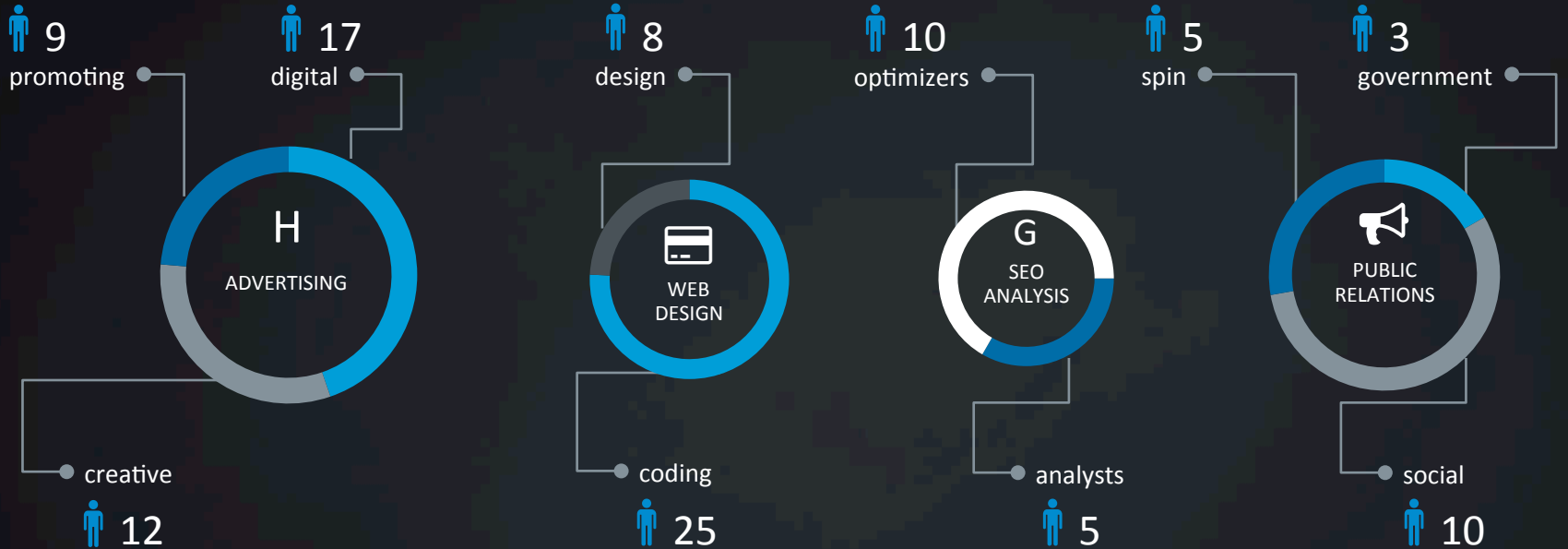
SUPPORT SERVICES



Publishing packages and you need to be sure there isn't anything default.

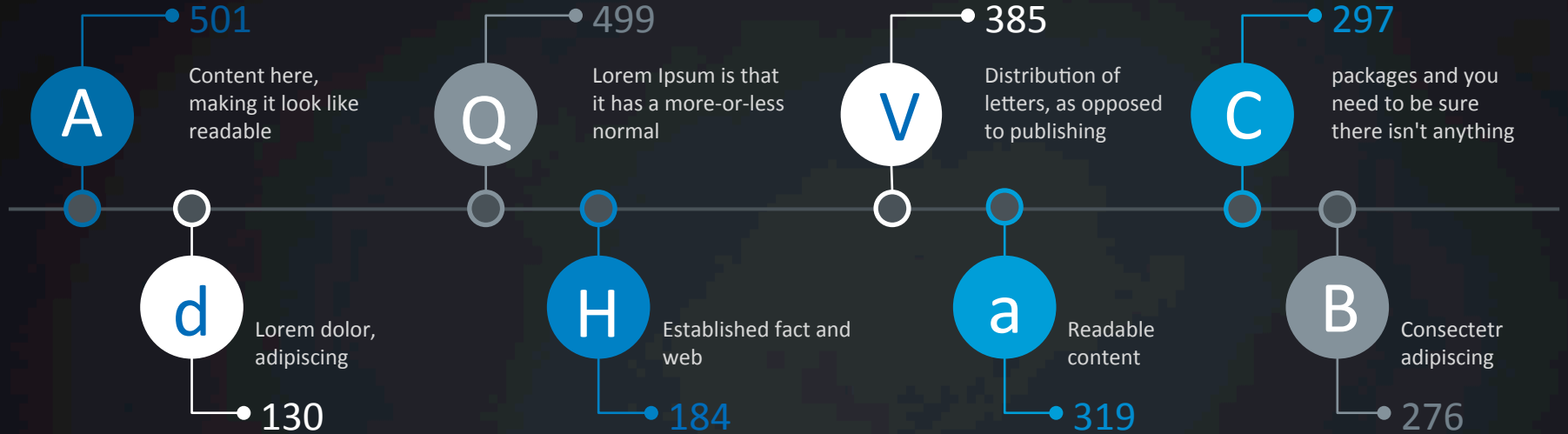
OUR SERVICES

service departments



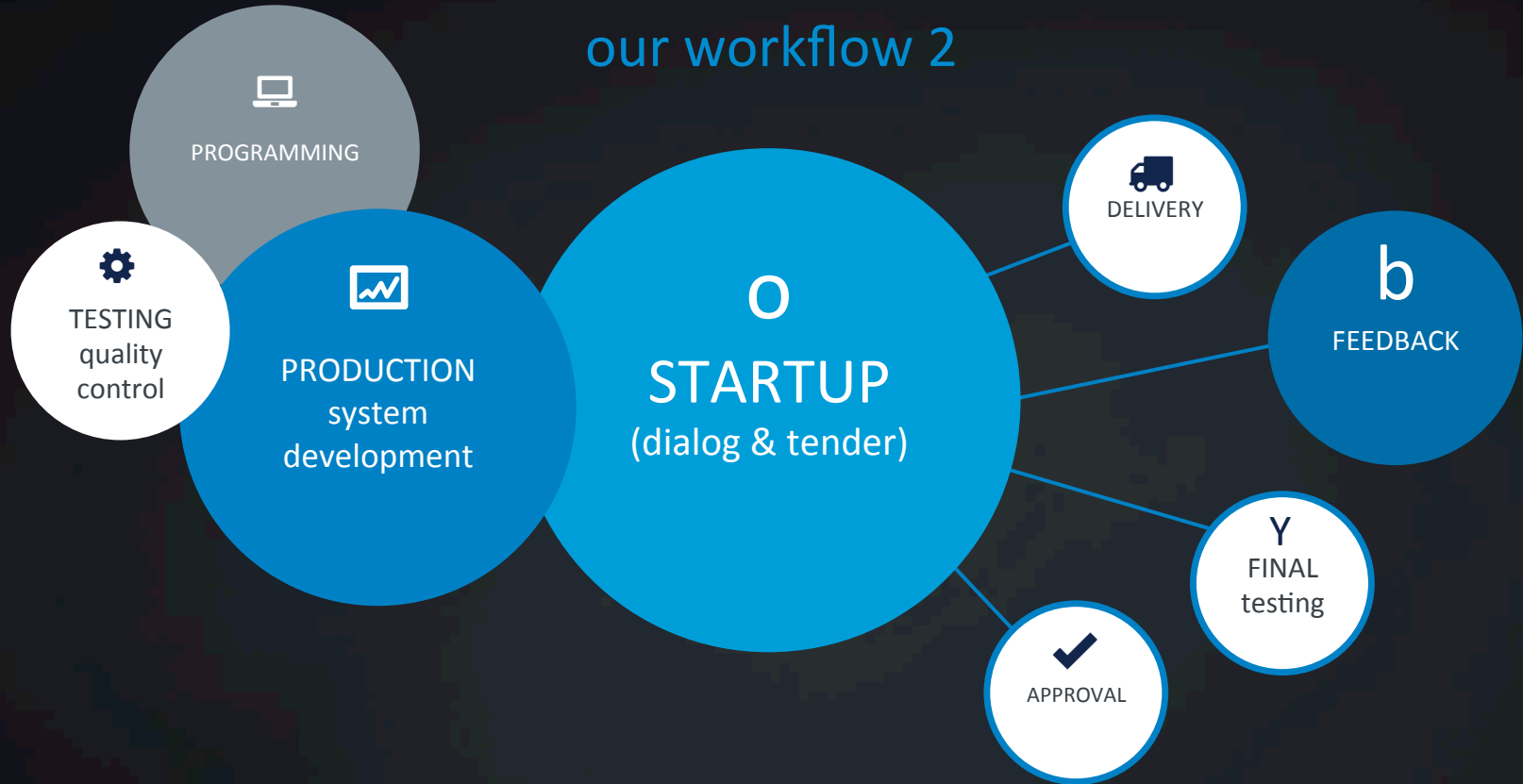
SOLUTIONS

our workflow 1



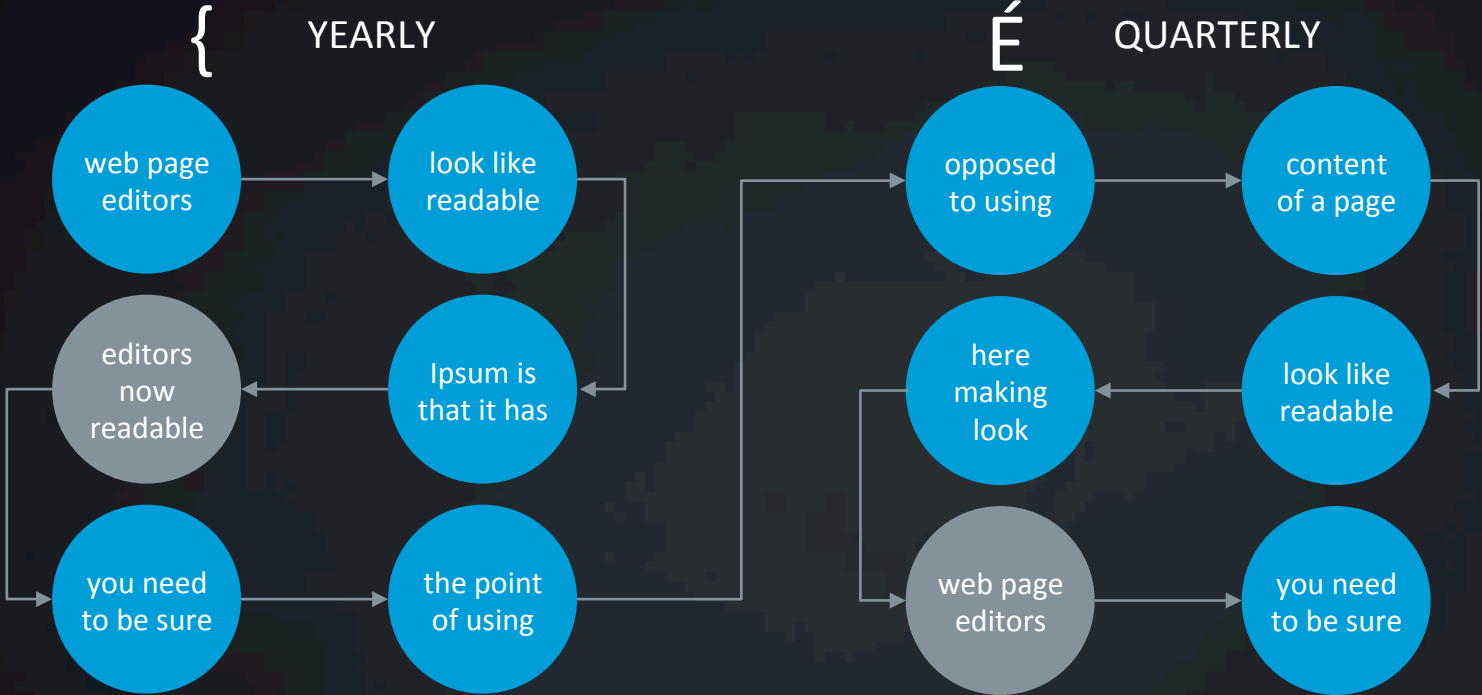
SOLUTIONS

our workflow 2



SOLUTIONS

free sharing





b



WE UNDERSTAND

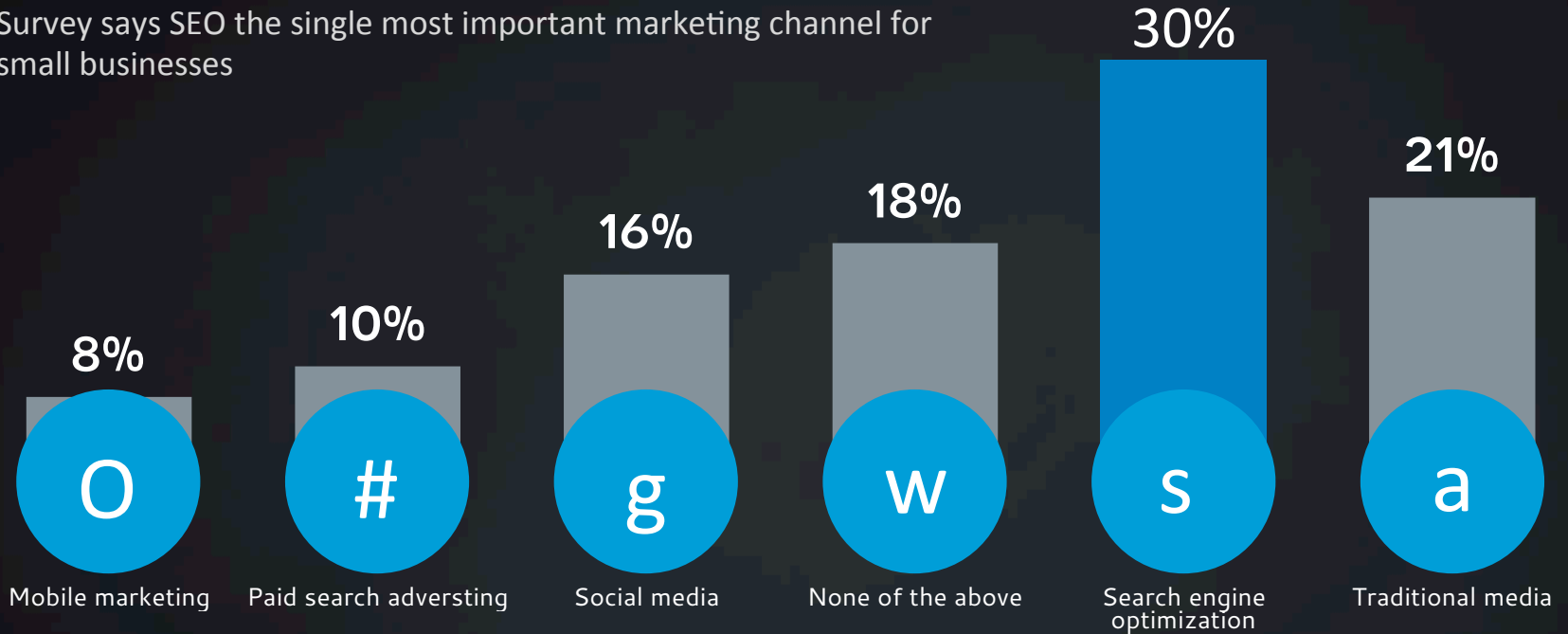
And have a pulse on the ever-changing
needs of our clients

a

STRATEGIES

improve SEO

Survey says SEO the single most important marketing channel for small businesses



ANALYSIS MARKET

mobile shopping trends



ANALYSIS TRENDS



K

IV

WE INSPECT THE RESULTS

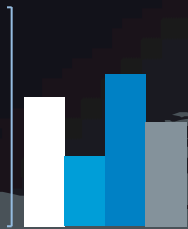
And create a control group for each campaign and maintaining a constant, global control group as well



ANALYSIS

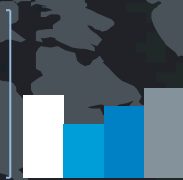
query words of regional serches

4000



CANADA

3500



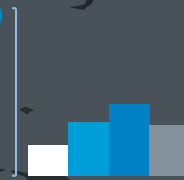
US

5000



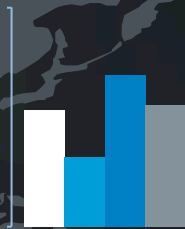
UK

2500



INDIA

4000



AUSTRALIA

S

DESIGN

S

WEB

S

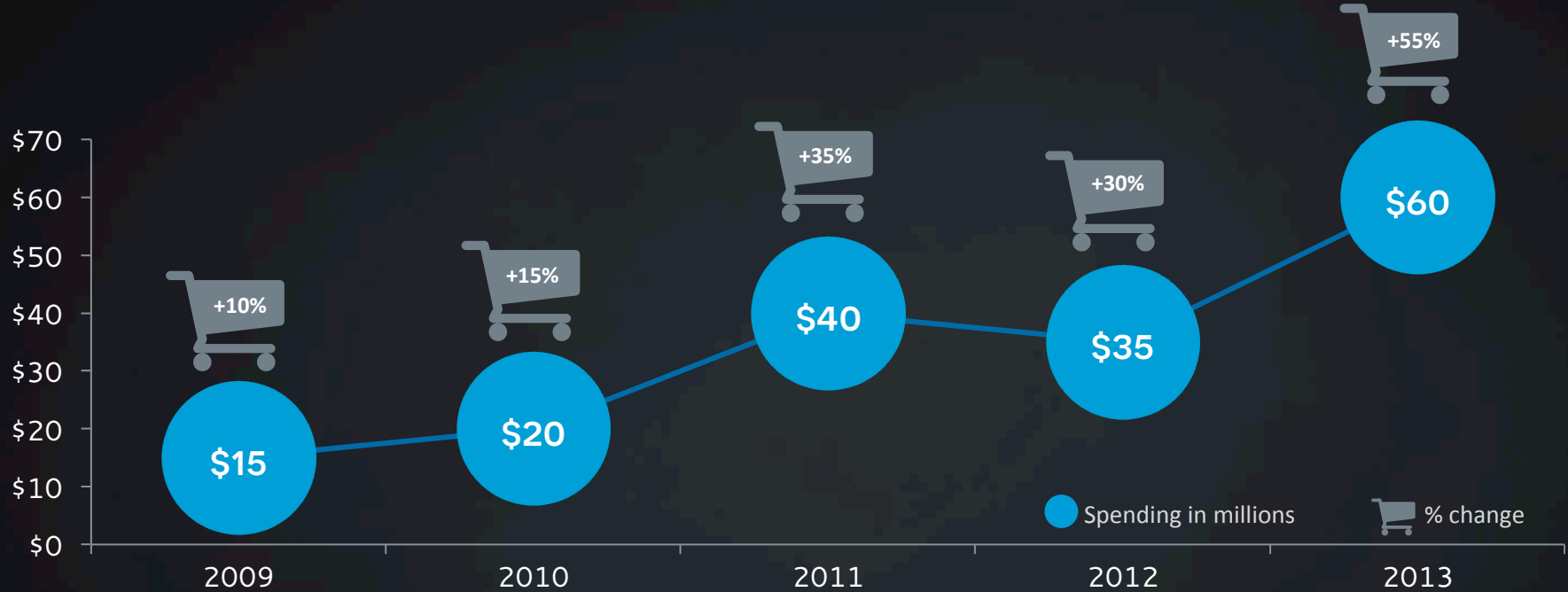
PROMO

S

BRANDING

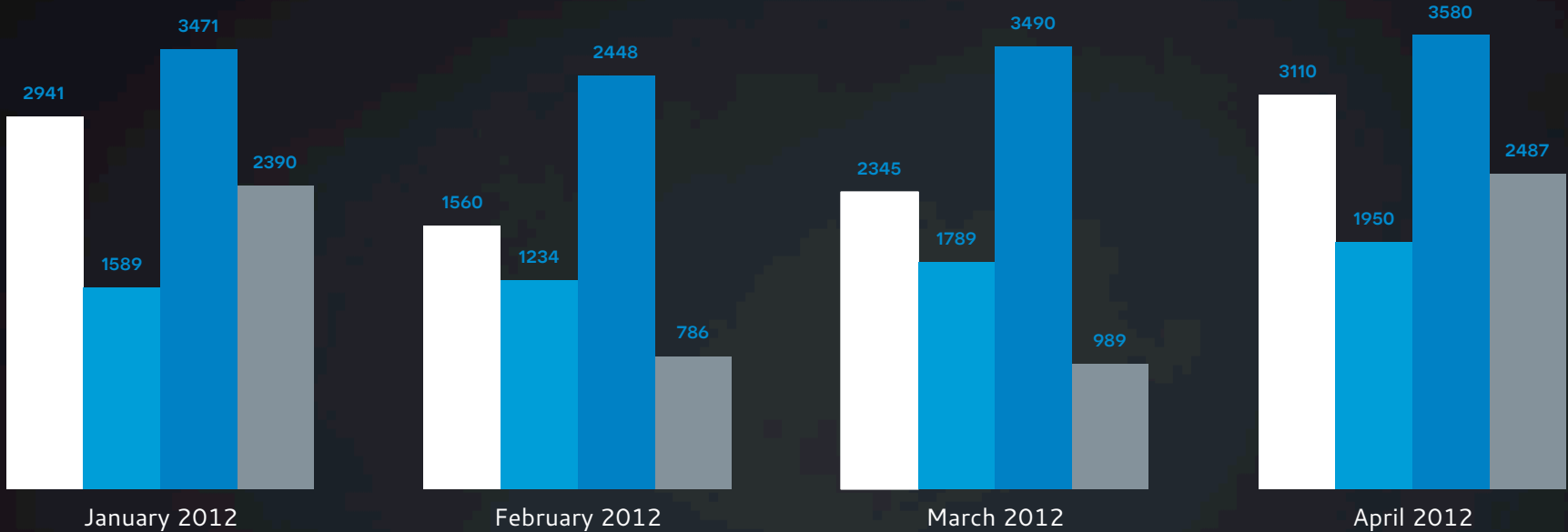
ANALYSIS

online retail dominance



ANALYSIS

query words to the search engine



S

DESIGN

S

WEB

S

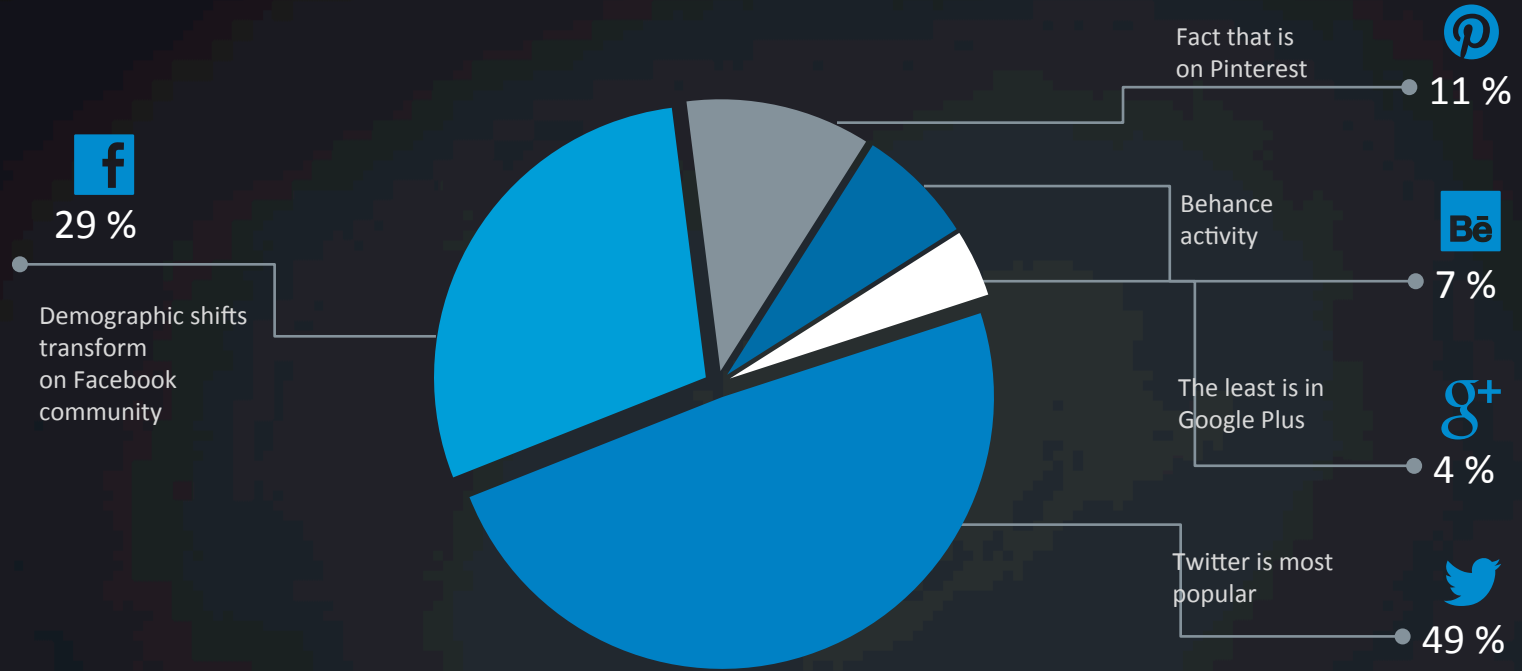
PROMO

S

BRANDING

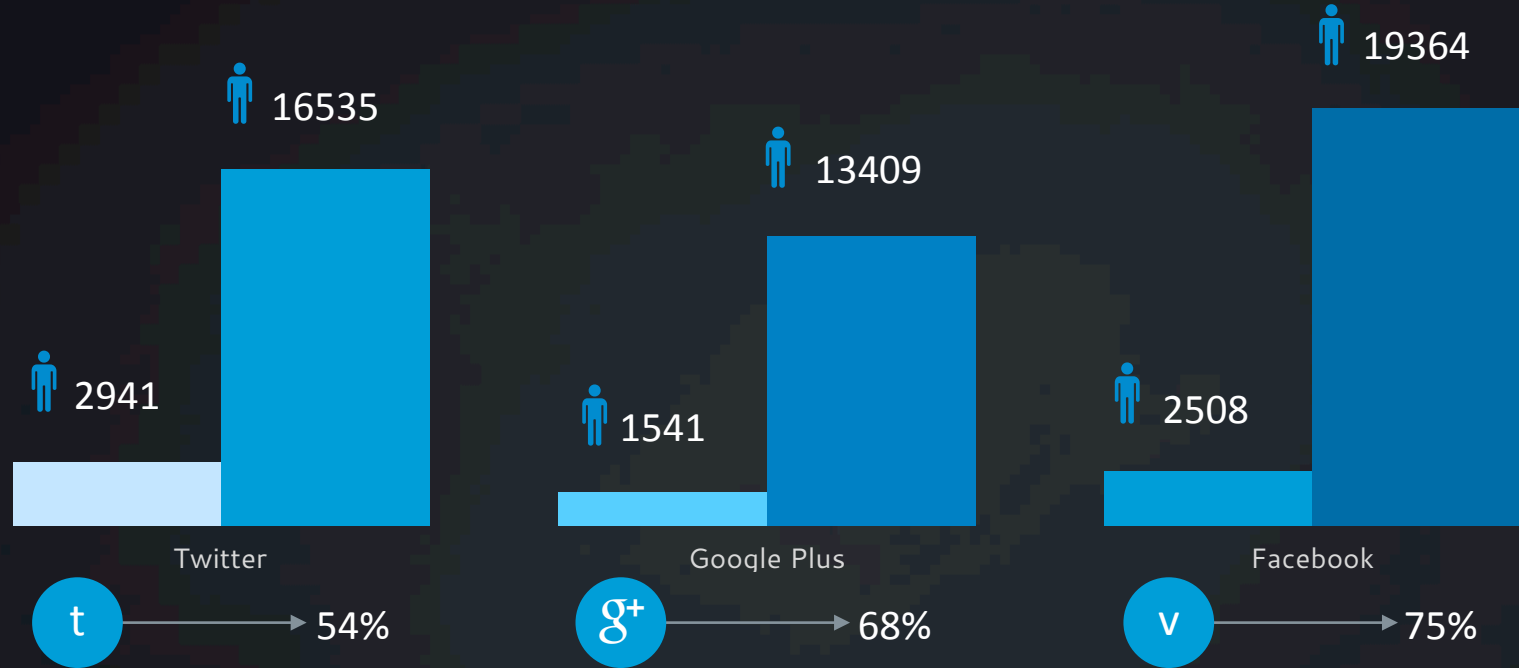
ANALYSIS

social media chart



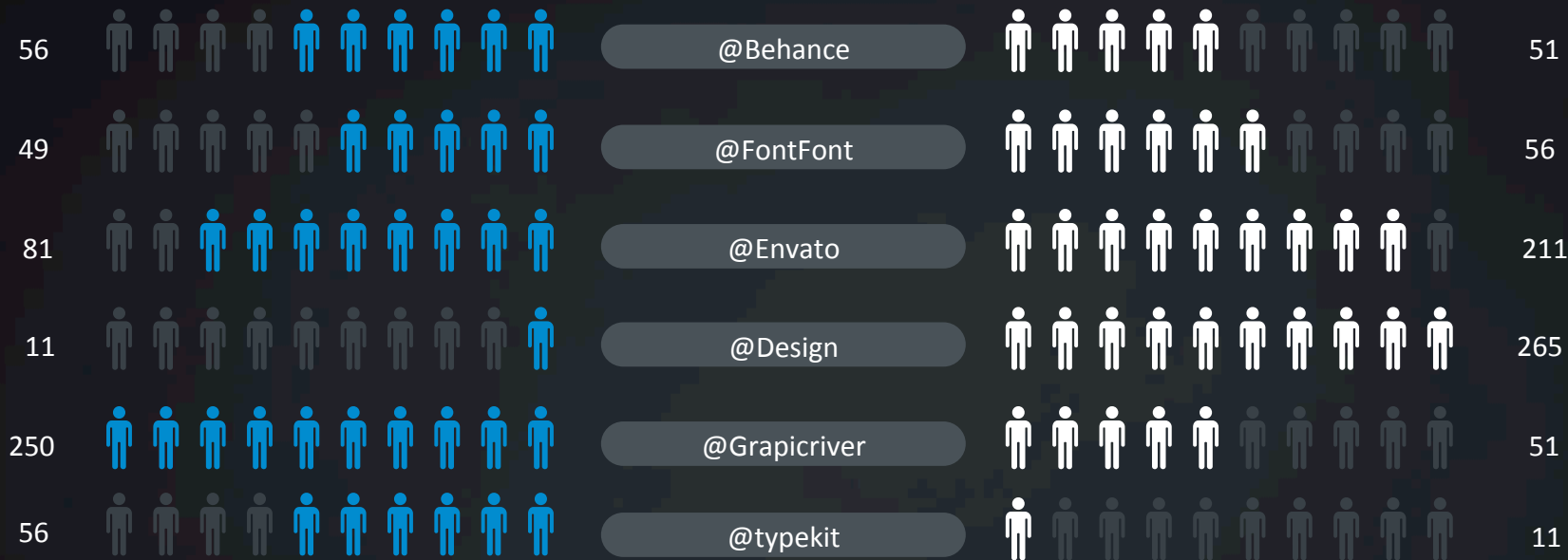
ANALYSIS

followers grow chart



ANALYSIS TWITTER

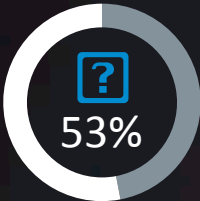
follow activity



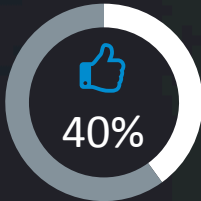
 a following  of followers

ANALYSIS **FACEBOOK**

social consumer activity



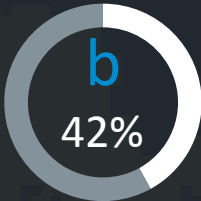
Use Facebook to interact with a brand



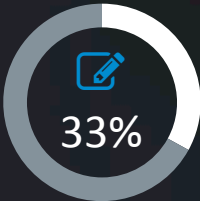
Liked a product on Facebook



Use Facebook to research products at least once a week



Wrote an online post about a product



Wrote a product review online

POLLS

interview based





WE'RE A **X**
COMMUNITY
LEADER

That supports high-impact opportunities by working closely with organizations and other resources to create positive and lasting change



v

9

MEET THE COMMUNITY

our workflow 3

REQUEST LEGAL APPROVAL

Lorem Ipsum established fact that

36%

A

various versions have evolved

75%

2

by success

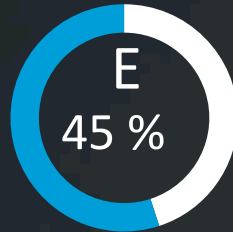
25%

C

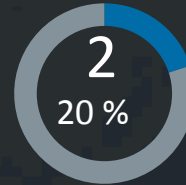
by over

APPROVED

Content of a page when looking



VIEW



LISTEN

THE SIZE OF MARKETS

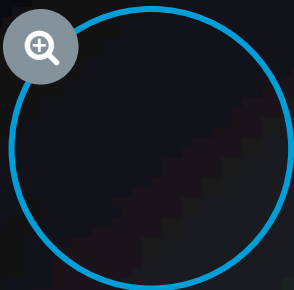
Content of a page

51

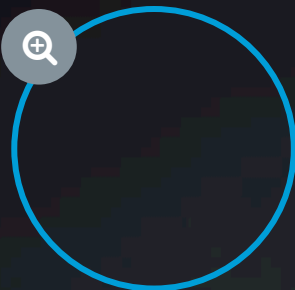
million



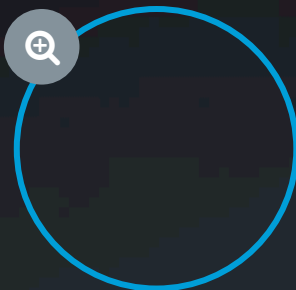
OUR PROJECTS



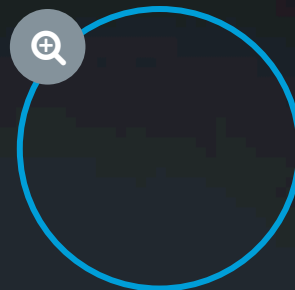
Project name
Lorem dolor sit amet it



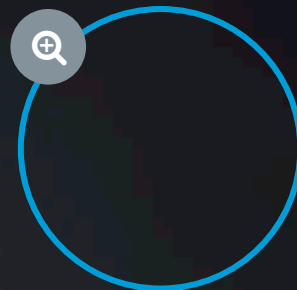
Project name
Mauris tempor vehicula



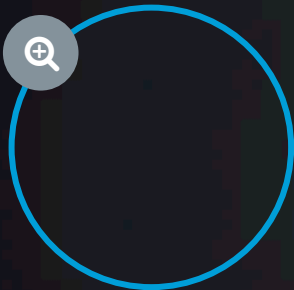
Project name
Amet consectetur elit



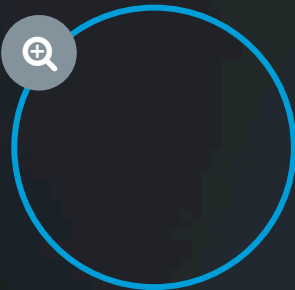
Project name
Content here, making it



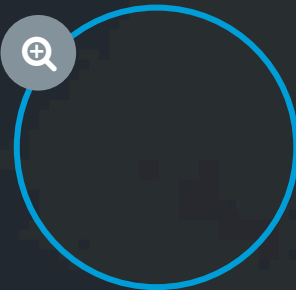
Project name
Lorem dolor sit amet it



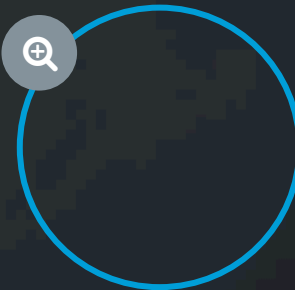
Project name
Readable content



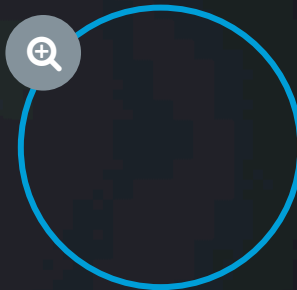
Project name
Established fact and web



Project name
Consectetur adipiscing



Project name
Look like readable



Project name
Readable content



COFFEE BREAK

Let's have a break now



Well 'come back in 20 min

SHOWCASE VIDEO

our showreel 2012

2

VIDEO ABOUT US

Proin gravida nibh vel velit auctor aliquet. Aenean sollicitudin, lorem quis bibendum auctor, nisi elit consequat ipsum, nec sagittis sem nibh id elit. Duis sed odio sit amet nibh vulputate cursus a sit amet mauris.

SHOWCASE **WEB**

gallery one screen

K

BRIEF: Lorem dolor sit amet, consectetur.

\$

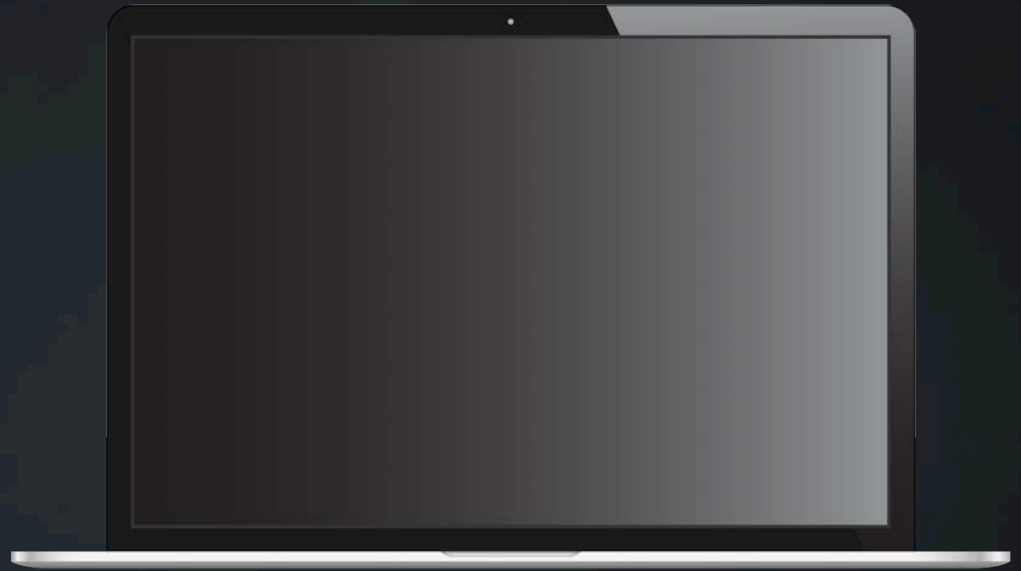
BUDGET: \$64 000

å

SOLUTION: mauris tempor vehicula.

j

RESULT: more then lorem dolor amet.



SHOWCASE **SEO**

gallery two

K

BRIEF: Lorem dolor sit amet.

\$

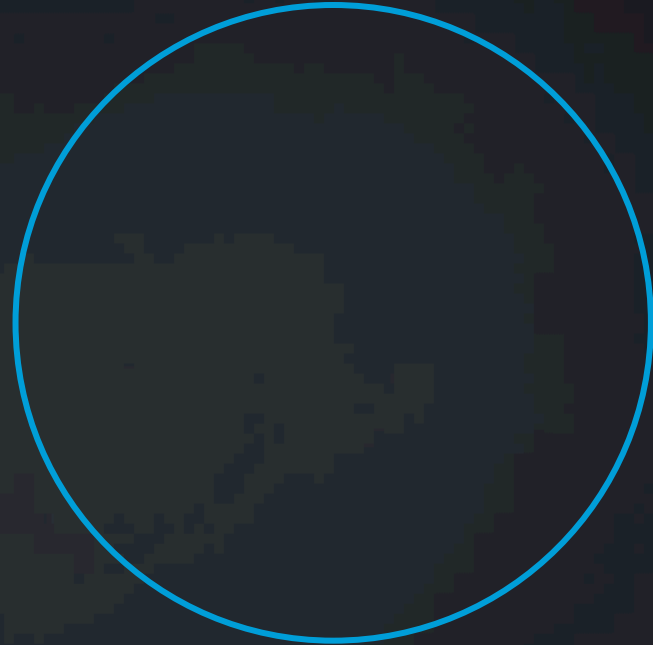
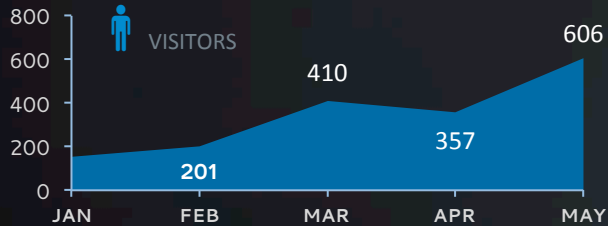
BUDGET: \$512 000

å

SOLUTION: mauris tempor vehicula.

j

RESULT: consectetr adipiscing elit.



SHOWCASE MOBILE

gallery three

K

BRIEF: Lorem dolor sit amet, consectetur.

\$

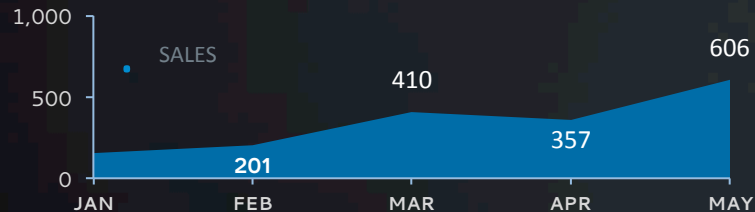
BUDGET: \$128 000

å

SOLUTION: mauris tempor vehicula.

j

RESULT: more then lorem dolor sit elit.



VI

Z



WE'RE PROFICIENT

Our staff are expertly trained in the systems they use

PUBLIC EVENTS

recent activities

02 jan



Content here, making it look like readable English the point of using Lorem Ipsum is that it has a more-or-less normal.

07 feb



Distribution of letters, as opposed to using.
Publishing packages and you need to be sure there isn't anything default.

01 jun



Lorem Ipsum established fact that and web page editors now readable content of a page when looking at its layout.

OUR CLIENTS

some of our partners



TESTIMONIALS

quotes



JOHN SMITH
Independent Press

I'TS AMAZING WHAT WE CAN SEE...

Proin gravida nibh vel velit auctor aliquet. Aenean sollicitudin, lorem quis bibendum auctor, nisi elit consequat ipsum, nec sagittis sem nibh id elit. odio tincidunt auctor a ornare odio. Sed ut imperdiet nisi. Proin condimentum fermentum nunc.



JESSICA SMITH
New Times Magazine

I'VE SEEN A MILLION WORKS OF ART...

Nullam ac urna eu felis dapibus condimentum sit amet a augue. Sed non neque elit. Sed ut imperdiet nisi. Proin condimentum fermentum nunc. Etiam pharetra, erat sed fermentum feugiat, velit mauris egestas.

STATEMENT

calculations

RECOMMENDED MEDIA	\$	\$
National TV (incl. virtual TVC)		200 000
Outdoor		31 700
Billboards	17 500	
Ambient outdoor	14 200	
Indoor placements		20 000
Fitness & beauty centers	9 000	
Business centers	11 000	
Digital		8 000
TOTAL		259 700



QUESTIONS AND ANSWERS

Where we hope you'll find the answer
to any question you may have about



Go ahead. Ask away.
Give us your best shot.



CONTACT US

we're based in Silicon Valley, CA

IF YOU WANT TO SEE WHERE WE WORK

and find out how we make websites, mobile applications and online campaigns, come on over and meet us!

Lorem ipsum how we make websites, mobile applications and online campaigns, come on over and meet us!

CONTACT



t 1(123) 456 78 90

t 1(123) 456 78 90



SERVICEDESK

s 1(123) 456 78 90

s 1(123) 456 78 90



VISIT US

5454, Company
address, Country

FOLLOW US

social links



FACEBOOK
facebook.com/ourcompany



PINTEREST
pinterest.com/ourcompany



TWITTER
twitter.com/ourcompany



DRIBBBLE
dribbble.com/ourcompany



GOOGLE+
plus.google.com/ourcompany



VIMEO
vimeo.com/ourcompany



BEHANCE
behance.com/ourcompany



LINKEDIN
linkedin.com/ourcompany



**THANK
YOU**

FOR WATCHING



See you soon!