

Business Plan
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Ensembl Executive Summary

Company Overview: Ensembl is a technology-based consulting firm that harnesses the power of functional magnetic resonance imaging (fMRI), electroencephalogram (EEG), biometrics, and industry know-how to help decision makers in the cinema industry better utilize their production budget. Analogues include BioClinica in the pharmaceutical industry and FKF Applied Research in the neuromarketing space. We provide the highest quality spatial and temporal resolution in combination with custom trial design to more accurately gauge viewer engagement in cinema and advertising content.

Market Opportunity: Presently, 50% of a film's production budget is spent on marketing. The average production budget is \$20MM ranging from \$1MM - \$300MM. Roughly \$10MM is spent on advertising per movie. Characteristically, 600-700 movies are produced annually for general distribution making our initial target market a \$1.4B to \$3B opportunity with an even larger opportunity in the consumer product goods market following success in cinema.

End User Problem: Over \$4B are lost every year because cinema decision makers place bad bets on movie content. A single large failure could result in bankruptcy for a highly levered production house. The current standard of content market research is focus group surveying which rely on subjects' ability to recall and express complex emotions associated with viewing content. Participants may be unable to or unwilling to articulate what they "really feel" in response to complex or provocative subject matter.

Ensembl Solution and Differentiation: The Ensembl launch team has patents for an fMRI setup that allows for a cinema-like viewing experience and the ability to interact in real-time with the test subject. Based on proprietary technology and capability for personalized design, we will deliver actionable recommendations based on cutting edge neuroscience tools. The quality of scientific methodology will differentiate us from other firms that have attempted to enter the neurocinema space.

Current Status: We performed a comparative study between a focus group survey and fMRI imaging. Our data reveals significant differences in viewer responses on brain areas important in attention and engagement. We have secured our first client, mOcean, an LA-based creative marketing agency. We will back-test the predictive validity of our methods with movie trailer content in several target markets. We have successfully raised \$500K in angel investment from two separate investors.

Financing Needs: mOcean will bear much of the cost to finalize our MVP. We can complete our back-testing studies with \$750K. If successful, we expect to garner an average contract size between \$1MM-\$3MM.

FINANCIAL SUMMARY						
(in US Dollars, 000's)						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
TOTAL REVENUES	\$500	\$3,183	\$26,225	\$50,648	\$86,946	\$93,136
Total Direct Expenses	(603)	(1,469)	(9,861)	(19,419)	(32,351)	(34,582)
Gross Profit	(\$103)	\$1,714	\$16,365	\$31,229	\$54,595	\$58,544
Gross Profit % margin		54%	62%	62%	63%	63%
Research and Development Expenses	(69)	(484)	(948)	(1,530)	(2,508)	(3,002)
SG&A, Marketing Expense	(165)	(1,643)	(4,121)	(5,464)	(6,753)	(6,990)
TOTAL OPERATING EXPENSES	(\$837)	(\$3,596)	(\$14,930)	(\$26,412)	(\$41,612)	(\$44,585)
EBITDA	(\$337)	(\$413)	\$11,295	\$24,235	\$45,334	\$48,551
EBITDA % margin			43%	48%	52%	52%
EBIT	(\$337)	(\$413)	\$11,295	\$24,235	\$45,334	\$48,551
EBIT % margin			43%	48%	52%	52%
NET INCOME	(\$337)	(\$413)	\$11,295	\$24,235	\$45,334	\$48,551
Net Income % margin	(67%)	(13%)	43%	48%	52%	52%
NET CHANGE IN CASH	(\$337)	(\$413)	\$11,295	\$24,235	\$45,334	\$48,551
CUMULATIVE CASH FLOW	(\$337)	(\$750)	\$10,545	\$34,780	\$80,114	\$128,665

Company Background

Ensemble is a technology-based consulting firm that uses neurologic imaging and physiologic monitoring to help decision makers in the motion picture industry better utilize their production budget dollars. By utilizing our proprietary imaging technology and custom consulting services; movie studios, television networks, media companies, and content providers will be able to minimize their downside risk on the production development process.

Ensemble is based in Los Angeles, CA to leverage our established ties in the neuroimaging community in addition to the film and entertainment community. This company relies heavily on over three years of technology development and patented intellectual property of our CEO, Dr. Adam Bazih, who has pioneered fMRI-based consulting services to the pharmaceutical research and development market.

Problem

Every year in the film and television industry, billions dollars are spent by movie studios, television networks, and content providers with the hopes of creating the next potential box office success or hit series. The majority of these projects fail resulting in lost opportunities for projects and ideas that could have proved to be desirable by the viewing audience. The primary processes of market research are qualitative focus group and surveys which rely on outdated marketing techniques and subjects' ability to recall and express complex emotions associated with viewing content. For example, Yahoo's recent 3Q 2015 write-down of \$42MM is one small example of how many content providers make poor decisions based on inadequate data in determining which type of content will resonate with the end user. Early understanding of the target market interest for their content could prevent unnecessary investment given early stage engagement of Ensemble's consulting services.

We recently spoke to a former Executive at one of the Big Ten studios who was in charge of the trailer production process. She thought: "it's great we're taking research to the next level. Applying technology to actors imagery, scripts, and scenes can add tremendous value." She also felt that trailers were a good place to start and felt mOcean would be an ideal first partner. Based on our assessment of our initial target market, we expect that we can capture 20% of the marketing spend for each project assuming we improve correlation to box office hit by at least 10%. Currently, the best focus groups report 0.70 correlation to box office success using Piedmont's patented consumer engagement model.¹ Known publications for other neurocinema competitors have been in a similar range. Assuming there are approximately 780 movies per year, we expect our initial target market to be \$11BN.

Table 1. Bottom Up Market Sizing for Initial Target Market

Bottom Up Market Opportunity 2016 Film Production						
Category	Annual Revenue	# of Distributors	Number of Releases	2% Initial Capture Rate	Average Contract Size	Revenue From Contracts
Major Studios	100M - 2.5B	10	203	2	1.5M	3
Mid Major Studios	10M-100M	15	126	3	1M	3
Small Studios	1M-10M	35	208	4	300k	1.2
Minor Studio	100k-1M	39	167	3	100k	300
Micro Studio	1k-100K	47	76	N/A	N/A	
Total	11.3B	146	780	12		7.7M

¹ <http://creativescreenwriting.com/moneyball-for-movies-screenwriters-and-market-research/>

Additional Analysis	P&A	Ensembl Target Market Share 2%
Studio Production Budget	8BN	168MM
Studio Marketing Budget	3BN	72MM
Total Revenue	11BN	240MM

Sources: BytheNumbers, Box Office Mojo, Hollywood Report

Solution

Pan, the Peter Pan prequel, earned just \$15.31MM in its opening weekend in the US with a global total of just \$40MM. The movie was released by Warner Brother's/Time Warner and cost \$155MM to produce, and as the opening weekend sales represent 25% of the total domestic revenue², this movie was a major box office flop. In a focus group we conducted consisting of 41 participants, Pan was assessed favorable with 68% of the participants reporting that they were excited by the trailer and would likely go see it (for full results see Appendix – Focus Group Survey and Data Analyses). This response was only numerically (but not statistically) lower than the 76% of participants who responded that they would go see Star Wars after viewing its trailer (Figure 1). Star Wars earned over \$1B in its opening weekend and is considered a huge box office success.

In an fMRI imaging session, we tested three subjects on their response to the Pan and Star Wars trailers (Figure 2, for full study design see Appendix – fMRI Data Collection) and found that our fMRI scans showed significant differences in engagement and attention for Star Wars compared to Pan. We expect that a full compliment of Ensembl's EEG, fMRI, and biometrics (ie eye-tracking), will lead to even further improvement of signal³ (Figure 3).

Figure 1. Focus Group Results

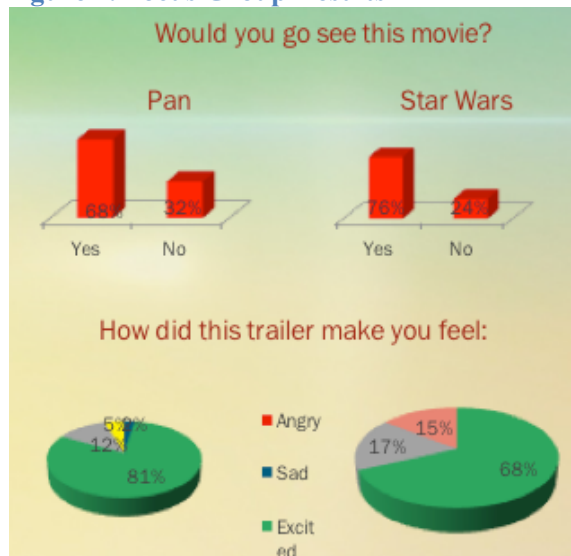
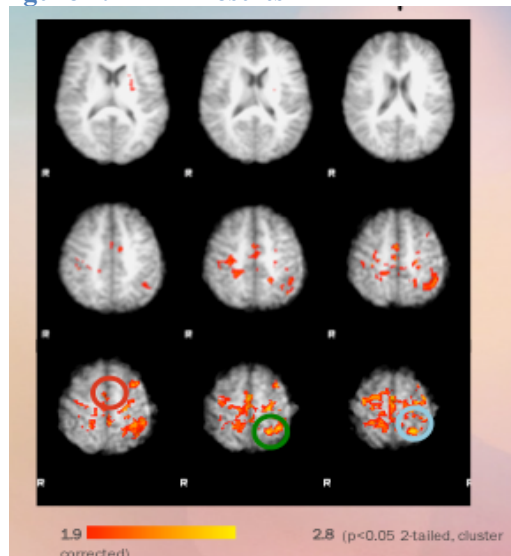


Figure 2. fMRI Results



² <http://people.stern.nyu.edu/jsimonof/classes/2301/pdf/movies.pdf>

³ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3360990/>

Ensembl can identify the optimal target market for market creation dollars. For example, Pan only attracted 23% of the under 18 market and 55% of the female market compared to Cinderella whose ticket sales were fueled by 44% and 77% engagement of those target audience respectively⁴. As Pan was considered by most as pretty dark with some violence and rated PG-13, it is likely that the director was hoping it resonated with an older audience. This target market could be tested for engagement prior to large amounts of marketing dollars spent to lure this demographic.

Intellectual Property: Ensembl's Dr. Adam Bazih holds patents (Appendix - Patents) on a unique audio-visual solution that is compatible with all current fMRI technology, LUMICA (Appendix - Setup). The A/V solution is a high-definition visual display and stereo-sound that provides a relaxing theater-like experience and minimizes stressful noises associated with traditional MRIs. LUMICA also allows communication between the scan operator and the subject, so interactive feedback can be collected in real-time while scans are ongoing. Additionally, software patents for simultaneous and EEG/fMRI signal processing are pending.

Competitive Analysis

There are three direct competitors in the US neurocinema space that use fMRI technology for prediction of attention, emotion, and neural network response to movie trailers or long form videos. These firms are TrueImpact, Neurosense, and MindSign (Figure 3). Ensembl is uniquely positioned to provide an fMRI-based approach coupled with EEG signal overlap. fMRI has distinct spatial resolution that allows us to pinpoint the regions of brain activation while EEG provides important temporal resolution that allows us to track responses in real time. Alternatively, Affectiva is a low-resolution competitor that also targets the neurocinema market but instead uses eye-tracking, biometrics, and facial monitoring to determine emotional response to video.

Potential future competitors include firms that are currently targeted to neuromarketing clients and utilize a number of the same neuroscience tools. The neuromarketing companies focus on applying these tools to optimizing branding and marketing outcomes (communications, innovation, and user experience) in a research market that spends \$50BN, and the most obvious competitors are those using high-resolution fMRI technology. The products in both of these spaces are positioned as a consultancy service, planning and conducting focus group studies, analyzing and interpreting results, and providing go/no-go recommendations. Ensembl is also positioned as a full-service data collection service and consultancy with cross-functional expertise in neuroimaging, behavioral neuroscience, and entertainment industry business development (Figure 4). Indirect competitors include focus group companies that do not use biometrics (Piedmont, National Research group with the highest benchmark at 70% correlation in best case scenarios).

⁴ <http://www.hollywoodreporter.com/news/box-office-how-pan-turned-831240>

Figure 3. Competitive Landscape for companies using biometrics in cinema or marketing

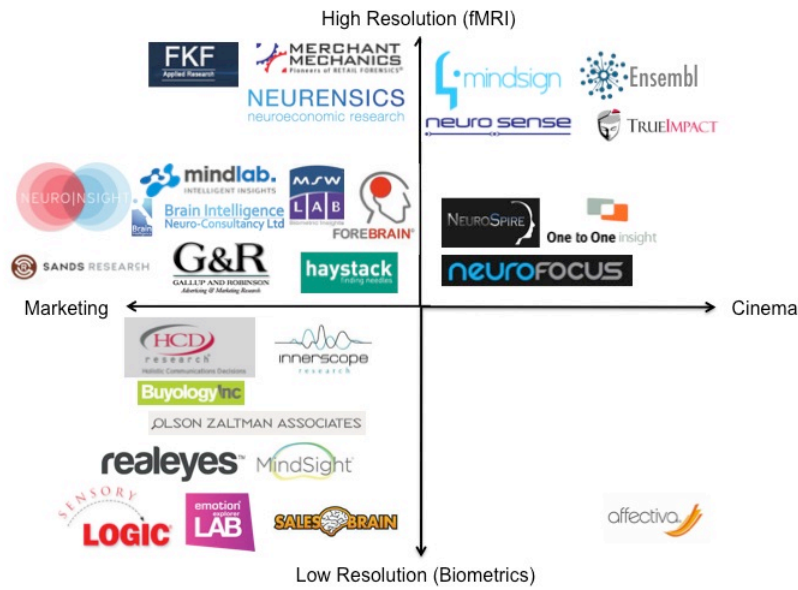


Figure 4. Selected company attribute comparison to Ensembl

	Innerscope (Nielsen)	NeuroFocus (Nielsen)	NeuroInsight	SalesBrain	Buyology	FKF	ENSEMBL
fMRI-EEG							✓
Real-time fMRI	✓					✓	✓
High-res qEEG							✓
Simple EEG	✓	✓	✓				✓
Eye tracking	✓					✓	✓
Vitals (Pulse, pO2, BP, etc)	✓					✓	✓
Neuropsychiatric Testing	✓		✓	✓	✓		✓
Proprietary & Patented Analytic Software		✓	✓		✓		✓
Proprietary & Patented fMRI Hardware							✓
Platform Hardware Manufacturing Ability							✓

Operations

Figure 5. *Ensembl Workflow.* As a consultancy, we provide an end to end solution working directly with the clients to answer their business questions with cutting-edge technology and industry knowledge.

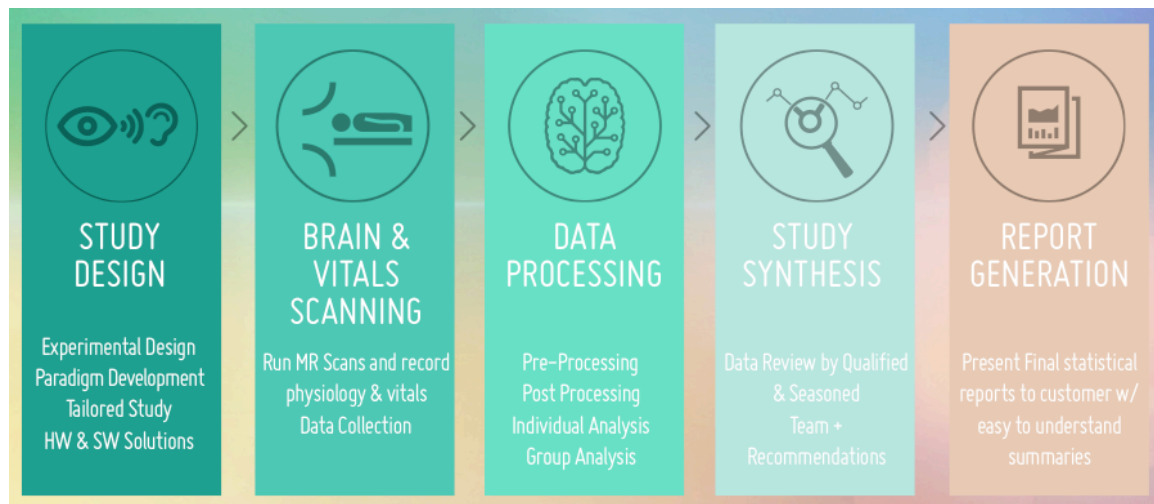
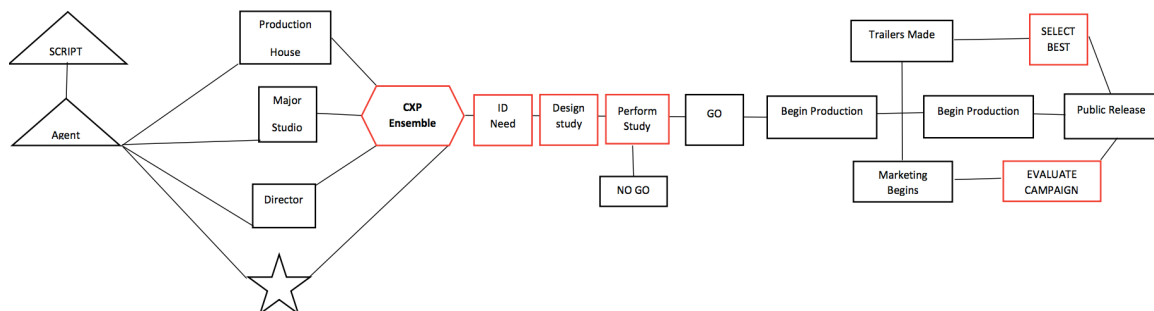


Figure 6. *Studio Workflow.* Ensembl will embed its operational workflow of its customers at select entry points (labeled in red) that aid customers in early go-no-go decisions and later stage content development.



See Appendix for detailed start-up costs and initial COGS.

Timeline and Key Risks

We have secured our first client, mOcean, an LA-based creative marketing agency. We will back-test the predictive validity of our methods with movie trailer content in several target markets. We have successfully raised \$500K in angel investment from two separate investors.

Key Milestones:

Q1 2016 Initiate/Design proof of concept trailer study for mOcean

Q2-Q3 2016 Analyze and Interpret Data for mOcean Study

Q3 2016 Go to Market – Major Studios/ Mid-Major Studios based on mOcean Results

Q3-4 2016 Design/Develop Menu of Products Offered

Q1 2017 Execute contracts with 2-3 Major/Mid-Major Studios

Q2 2017 Begin Contracts to Major and Mini-Major Studios

The foremost business risk for Ensembl is the ability to produce predictive data results that are better than cheaper, existing EEG technologies.⁵ If we do show better predictive results with our fMRI scans, coupled with EEG and eye tracking, our results may not be significantly better than those already using fMRI. Additionally, competitors in the neuromarketing space may be able to replicate our success if they see traction in the neurocinema space, and while the LUMICA system increases reliability and provides a cinema-like experience, similar raw data may be replicable.

Go-To-Market Strategy

Our go-to-market strategy is to initially strategically partner with our beta client, mOcean, to generate backtesting data for trailer content. mOcean is well-known within the film industry and will increase our reputation in the area if we can successfully predict trailer successes from failures. The beta client will subsidize cost of research and development for a shot at early predictive capabilities.

This initial data will be the backbone of our initial marketing strategy. We will develop a website to direct leads and consulting requests. Additionally, we will generate a presentation deck with mOcean data and a video explaining our technologies and capabilities. To strengthen our data set we may also develop strategic partnerships with independent movie theaters. With predictive data and marketing materials in-hand, Ty Cameron will use his established connections within the film industry to target the decision makers, specifically the VP of Product Development and VP of Research and Development of the Big 10. As the decision makers are a small community in this business-to-business model, the primary expenses will include expenses of in-person meeting mostly related to travel and entertainment.

Following initial foothold in the film industry, we will expand into television and cable markets using a similar strategy and Ty Cameron's connections with past employer, BET, and other providers. Eventually, the largest market will be the consumer goods market for which we will leverage our prior client projects to productize our offering and support out-of-the-box packages to the consumer goods market leveraging the connections of our investor/adviser, Tylor Garland, in the CPG space (initial target clients: SkullCandy, BMW).

Financial Plan

There were over 700 major film projects distributed in 2015 generating revenues ranging from \$100,000 to \$2.5 Billion. Ensembl will target the ten (10) major studios and fifteen (15) mid-major studios in the industry. The major studios produced 203 projects in 2015 and the mid-major studios produced 126 projects in 2015. Total studio production budgets, which is dominated by the 10 major studios and 15 mid-major studios was \$7.9 billion. Total studio marketing budget for all films produced was \$3.61 Billion. Ensembl will focus our sales effort and product development to serve the needs of the major and mid-major studios. At

⁵ <http://journals.ama.org/doi/10.1509/jmr.13.0572>

stabilization, Ensembl expects to capture 10% of total production budget or 20% of total marketing budget.

We expect our sales cycle to be greatest during the launch stage as we build relationships and sell customers on our unique (patented) value proposition spending over \$300,000 in sales and marketing. Our financial plan allows approximately 18 months to move from letters of intent to contract start date and builds off of a 90 day billing cycle. Average contract price (for the major and mid-major studios), is estimated to be \$1.5 million. Ensembl fees will be absorbed either through the studio's production budget or through the studio's marketing budget. In any event, our services will represent a very small fraction (1-2%) of a film project's total budget.

We expect to be under contract on 2-3 assignments by the summer of 2017 and will be in active negotiations (letter of intent phase) on at least 16 contracts (2% capture rate) for production start in the following year. We expect that as word of our competencies and value proposition spread, we will grow exponentially and that 16 active contracts in year 3, which represents just 2.7% of market share of all film production, is highly achievable. By year 4, our capture rate will be roughly 5-6 % with 30 contracts. By year 5 we expect to capture 8.5% of the production market which represents about 50 active contracts. Contract term will average 1 to 3 years. Pricing will be customized to the client's needs and unique problem. From phase 0 (identifying the problem, outlining scope of services and customizing to client needs) through study design and synthesis, we will provide checkpoints to capture customer feedback. A final report will be issued. We will offer supplemental services such as post production/distribution studies, post-mortems.

A typical contract will be priced at \$1.5 million and on average will include the following:

Sales and Marketing Expenses:

- Initially \$300, 000 for presentation materials, website development and maintenance, travel and entertainment, staff training and development
- Maintain a 2.5% ratio of revenue to sales and marketing expenses ongoing

Direct Expenses:

- fMRI study / studies: 600 hours average at \$600 /hour
- Additional 2% mark up to cover other scientific studies, lab costs, costs related to soliciting subjects

Direct Staff:

- Scientists for data interpretation and extraction – full time at 1.5 per contract
- fMRI technician at .25 per contract
- Allocations for Project Coordinator, Account Manager, and Administrative support
- R&D Facilities and Corporate Headquarters rental expense

In addition to these direct costs we will invest in on-going R&D and COGS:

- 2 Research Scientists on staff full time (additional 2% of Revenue allocation)

We project a gross profit margin of 60% at stabilization and an EBITDA margin of 50% at stabilization.

See Appendix for detailed income statement, cash flow analyses, and summary of underlying assumptions.

Team – Founders

Adam Bazih, MD, CMO: Dr. Bazih has over seven years of clinical, research, and business experience in healthcare imaging, holding multiple medical device and imaging patents. He has degrees in business, microbiology, chemistry, and medicine, has authored several scientific papers, consulted to multiple Fortune 500 companies, and was the founder and CEO of two medical device companies, most importantly SMRT IMAGE. Dr. Bazih's expertise include business operations, product development, and medical marketing. He is a member of the Tech Coast Angels (TCA), was featured in MedGadget as a healthcare technology innovation leader and is an advisor to and serves on the board of multiple healthcare startups. *His expertise in the neuroimaging space and existing patented intellectual property in the pharmaceutical space are the backbone of the Ensembl venture.*

Ty Cameron, CSO: Ty has 15 years experience in the entertainment industry with extensive advertising experience at CBS Corporation (CBS Television Network) and Viacom (BET). Ty is the founder of Cameron Talent Agency, a full service talent & literary agency based in Santa Monica, CA that represents a broad spectrum of actors, hosts, TV personalities, production companies, writers & directors while helping them all develop their unique brand. His company also packages multimedia opportunities for distribution on broadcast television, cable & online platforms. *His expertise and unique industry connections to major entertainment studios provide unique access to our early target market.*

Edny Inui, PhD, CTO: Dr. Inui has over 15 years experience in scientific research and study design. She holds a PhD in Neuroscience from University of Michigan and a BS in Biology from MIT. She has a background in behavioral neuroscience focused on mood and stress response. Dr. Inui has extensive experience in market research and consulting in the pharmaceutical development space as KOL Insight Product Manager at Informa Business Intelligence. Additionally, she will complete an MBA from the University of Chicago Booth School of Business in March 2016. *Her expertise in emotionality and market research supports custom design for client-centered studies to assess viability of their video content and defining test market segments.*

Darlene Acker, CFO: Darlene Acker is Principal, Director of Portfolio Management and Finance and one of the founding members of Zeller Realty Group (“ZRG”), a vertically-integrated real estate investment company which provides marketing/leasing services, property and asset management, construction management, capital markets and financial reporting expertise. As a founding member and for all of 25 years, Darlene has successfully managed a business plan through a number of economic business cycles and possesses strongly developed analytical and data-driven decision making skills. She has a proven track record as a proactive member of the senior management team and the investment committee with expertise in asset marshalling, procuring and negotiating optimal debt structure and developing and implementing strategic capital repositioning and disposition plans for all ZRG properties. Darlene will earn her Executive MBA from the Chicago Booth School of Business in March, 2016. *Her extensive experience in financial reporting, modeling, and valuation shape critical early-stage funding decisions to ensure the financial health of Ensembl from launch to revenue generation.*

Robert Harrel, MD, CMO: Dr. Robert Harrell is an award winning Minimally Invasive Thoracic Surgeon and serial entrepreneur. His unique career path has given him broad exposure

with extensive experience in clinical medicine, rigorous scientific research design as well as the entertainment industry. He performed a two-year research fellowship at NIH. He designed and executed a study on gene therapy for vascular disease that was accepted for publication in the journal *Nature*. He received numerous honors and awards for his basic science research. While completing his NIH research fellowship, he purchased the rights to a Strand-Up Comedy promotions firm founded in Chicago IL called *Laughfest*. He also opened a comedy club in Birmingham Alabama allowing him to book performers such as Steve Harvey, Bernie Mac, Cedric the Entertainer, D.L. Hughley, and Ricky Smiley. He has also started and maintained successful businesses in healthcare and real estate. He is a graduate of Duke University Medical School and UCLA Thoracic Surgery Fellowship. He is completing the Executive MBA program at the University Of Chicago Booth School Of Business in March 2016.

Team – Advisers and Investors

Tylor Garland (Advisor/Investor): Founder of Boombang Inc, a successful creative-design and marketing consultancy firm that's brought to market over \$2.5B in products through successful advertising campaigns.

Jonathan Axelrod (Advisor/Investor): Successful entrepreneur and CEO with exits over \$200MM.

Mark Cohen, PhD: UCLA professor is one of six of the original inventors of fMRI technology.

Cameron Rodriguez: Biomedical engineer who has led the neuroimaging field with multiple patents in the fMRI and EEG space.

Appendix

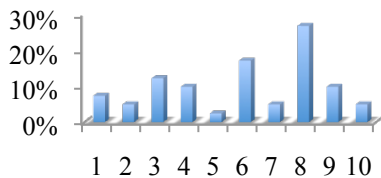
Focus Group Survey and Data Analyses

This survey was performed on 41 respondents in the same viewing session December 23, 2015 to assess movie-going behavior and reaction to two movie trailers: Pan and Star Wars. Respondents viewed a 150s trailer in a group setting and were asked to assess their response immediately following viewing of each trailer.

Select Survey Results

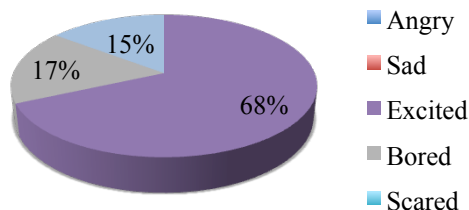
How much does a movie trailer impact your decision to purchase a movie ticket? (1=Least Influential, 10=Most influential)

47% of respondents reported that trailers reported a value ≥ 7 on how much a trailer influences them to purchase a movie ticket. This is consistent with survey data published by adweek in which 44% of individuals stated “they trust trailers a lot” when deciding whether or not to see a movie.⁶



How did this trailer A make you feel (Pan)?

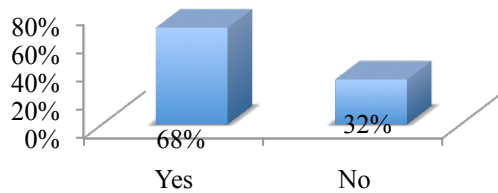
68% of respondents reported that the trailer made them feel excited. This number did not change significantly, but decreased numerically, when respondents who did not go to movies were removed (62%). Bored and Happy were the second and third-most reported emotions respectively.



Would you go see this movie (Pan)?

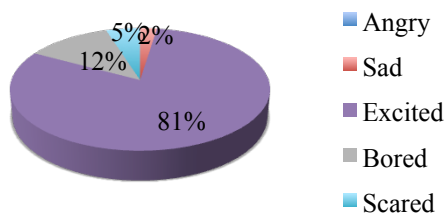
68% of respondents reported that they would go see Pan. This number did not change significantly, but did increase numerically (69%), when respondents who did not go to movies were removed.

⁶ <http://www.adweek.com/news/advertising-branding/numbers-look-hollywood-s-marketing-machine-155895>



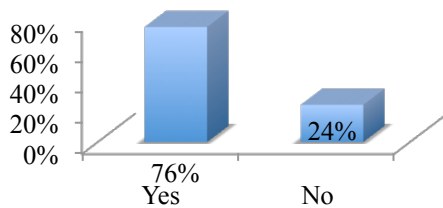
How did this trailer A make you feel (Star Wars)?

81% of respondents reported that the trailer made them feel excited. This number did not change significantly, but did increase numerically (89%), when respondents who did not go to movies were removed. Bored and Scared were the second and third-most reported emotions respectively.



Would you go see this movie (Star Wars)?

76% of respondents reported that they would go see Star Wars. This number did not change significantly, but did increase numerically (86%), when respondents who did not go to movies were removed.



If you had the ability to create a trailer for a film that you would wanted your friends to see, what would you include?

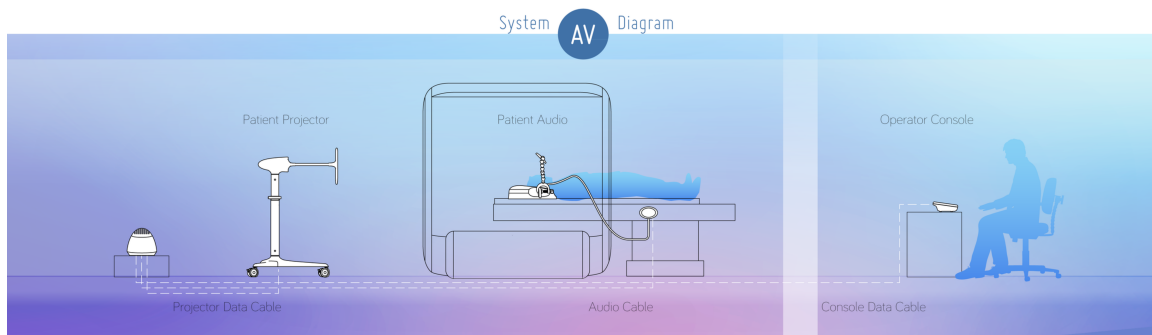
This was a trial behavioral question to see if specific content resonated with respondents. In the wordle below we see that responses most frequently included “action” while “scenes” and “characters” also had high frequency.



fMRI Data Collection and Results (see image above in Solution for significant differences)

On December 21st, all Ensembl team members met in Los Angeles to experience fMRI imaging combined with video viewing first-hand. A total of three imaging sessions were performed and run by Dr. Adam Bazih over two hours. The experimental design consisted of a 80s finger tapping protocol in which the subject was prompted to move left hand or right hand at 10s alternating intervals. This is done to get baseline brain activity for movement. The team member was then shown a 150s Pan trailer. There was another finger tapping protocol, then the team member was shown 150s Star Wars trailer. This fMRI data will be compared to analogue responses received in the focus group survey and analyzed for differences in self-reporting of emotions and brain activation in areas that are activated when subjects are attentive, fearful, happy, fearful, or personal connection (nostalgia). Results revealed significant differences in signal for brain areas related to attention and engagement when comparing Star Wars to Pan.

fMRI and data acquisition setup.



DETAILED INCOME STATEMENT

		Start Up/Beta Test Project	Projected - Operations				
(in US Dollars)		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Revenue							
Number of Active Service Contracts (Year 1 in Beta Test Project)		1	2	16	30	50	52
Average Cost of Service Contract (\$1.5MM, growing at 3%)		500	1,545	1,545	1,545	1,545	1,545
Contract Revenue		\$500	\$3,183	\$26,225	\$50,648	\$86,946	\$93,136
Total Revenues		\$500	\$3,183	\$26,225	\$50,648	\$86,946	\$93,136
Direct Staff Breakout							
	Number of Scientists/Tech/Admin.	5	8	34	63	102	105
Scientists - Data Interpretation and Extraction	1.5 per active contract	300	309	2,546	4,917	8,441	9,042
Software Engineers / Technicians	.25 per active contract	70	36	297	574	985	1,055
Project Coordinators	varies based on complexity-avg 1/10 contracts	-	103	170	525	540	556
Administrative Assistants		35	72	149	306	315	325
Accounting Managers	allocation varies-avg 1/10 contracts	10	103	170	525	540	556
Total Staff - Direct Overhead Expenses		\$415	\$623	\$3,331	\$6,846	\$10,822	\$11,535
fMRI Rental Expense & Related							
On-going Lab Costs (2% of fMRI Rental Expense)	2%	19	15	122	236	405	434
fMRI Rental Expense	\$600/fMRI hour, Avg 600 hrs/contract	90	742	6,111	11,801	20,259	21,702
Total fMRI Rental Expense & Related		\$109	\$756	\$6,233	\$12,037	\$20,664	\$22,136
R&D Facilities and Headquarters							
Total Staff		12	13	40	71	111	114
Square Feet Per Person	150	150	150	150	150	150	150
Gross Rent Per Square Feet	45	46	48	49	51	52	54
% Annual Increase		3%	3%	3%	3%	3%	3%
R&D Facilities and Headquarters		\$80	\$90	\$297	\$536	\$865	\$922
Corporate Selling and Marketing							
Total Corporate Selling and Marketing	\$250k in yr 2, 2.5% of revenue thereafter	\$75	\$250	\$656	\$1,266	\$2,174	\$2,328
Research and Development Program							
Patents, Licensing, User Agreements, Other	\$300k yrs 2&3, 1% of revenue thereafter	50	300	300	262	506	869
Research Scientists (Ongoing R&D, COGS)	1 fulltime yrs 2-3, 2 thereafter	—	120	124	255	262	270
Additional R&D Costs (% of Revenue)	2%	19	64	525	1,013	1,739	1,863
Total Research and Development Program		\$69	\$484	\$948	\$1,530	\$2,508	\$3,002
Corporate Overhead							
Total Corporate Overhead		\$0	\$1,000	\$2,706	\$2,893	\$3,183	\$3,278
Professional Fees							
Professional Fees (Legal, Insurance, Other, % of Revenue)	1.5%	\$90	\$393	\$760	\$1,304	\$1,397	\$1,384
NOI Before Depreciation, Amoritzation and Taxes		(\$337)	(\$413)	\$11,295	\$24,235	\$45,334	\$48,551

FINANCIAL SUMMARY

(in US Dollars, 000's)	Projected					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
TOTAL REVENUES	\$500	\$3,183	\$26,225	\$50,648	\$86,946	\$93,136
Total Direct Expenses	(603)	(1,469)	(9,861)	(19,419)	(32,351)	(34,592)
Gross Profit	(\$103)	\$1,714	\$16,365	\$31,229	\$54,595	\$58,544
Gross Profit % margin		54%	62%	62%	63%	63%
Research and Development Expenses	(69)	(484)	(948)	(1,530)	(2,508)	(3,002)
SG&A, Marketing Expense	(165)	(1,643)	(4,121)	(5,464)	(6,753)	(6,990)
TOTAL OPERATING EXPENSES	(\$837)	(\$3,596)	(\$14,930)	(\$26,412)	(\$41,612)	(\$44,585)
EBITDA	(\$337)	(\$413)	\$11,295	\$24,235	\$45,334	\$48,551
EBITDA % margin			43%	48%	52%	52%
EBIT	(\$337)	(\$413)	\$11,295	\$24,235	\$45,334	\$48,551
EBIT % margin			43%	48%	52%	52%
NET INCOME	(\$337)	(\$413)	\$11,295	\$24,235	\$45,334	\$48,551
Net Income % margin	(67%)	(13%)	43%	48%	52%	52%
NET CHANGE IN CASH	(\$337)	(\$413)	\$11,295	\$24,235	\$45,334	\$48,551
CUMULATIVE CASH FLOW	(\$337)	(\$750)	\$10,545	\$34,780	\$80,114	\$128,665

24 MONTH CASH FLOW			Fiscal Year 1																												
Projected			Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18					
(in US Dollars)			Year 1		Year 2		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	
Operational - Cash Basis																															
Revenue - Moroccan Beta Protect v1 1-bed 817-cay divt in arrears	375	125	0	0	0	0	0	125	0	0	125	0	0	125	0	0	0	0	0	125	0	796	-	-	-	-	-	-	-	-	-
Revenue - Studio / Production Cos. (AR Turnover-90 days-y 2)	0	3,183	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Staff/Direct Overhead Expenses	(415)	(623)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(35)	(52)	(52)	(52)	(52)	(52)	(52)	(52)	(52)	(52)	(52)	(52)	
R&D Rental Expense & Related	(109)	(756)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(63)	(63)	(63)	(63)	(63)	(63)	(63)	(63)	(63)	(63)	(63)	
R&D Facilities and Headquarters	(7)	(89)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	
Gross profit	(155)	1,839	(50)	(50)	(50)	(50)	75	(50)	75	(50)	75	(50)	75	(50)	75	(50)	75	(50)	(122)	3	673	(122)	(122)	(122)	673	(122)	(122)	673	(122)	(122)	673
Operating Expenses																															
Research and Development Program	(69)	(90)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	
Corporate Overhead	0	(1,000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(83)	(83)	(83)	(83)	(83)	(83)	(83)	(83)	(83)	(83)	(83)	(83)	
Corporate Selling and Marketing	(75)	(250)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	
Professional Fees (Legal and Related - Contracts)	(90)	(393)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(33)	(33)	(33)	(33)	(33)	(33)	(33)	(33)	(33)	(33)	(33)	(33)	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total SG&A & R&D	(224)	(1,733)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	
EBITDA	(389)	106	(70)	(70)	(70)	(70)	55	(70)	(70)	55	(70)	(70)	55	(70)	55	(70)	55	(70)	(267)	(142)	529	(267)	(267)	529	(267)	(267)	529	(267)	(267)	529	
	-	-	-	-</																											

Ensembl

Project Details		Ensembl							Technology Based Consulting Firm launched in 2016	
File Name		1/21/2016							Insight into Viewer Engagement Responses	
File Date										
General Assumptions										
Analysis Start Date		07/01/16								
Reporting Start Date		07/01/16								
Global Growth/Inflation Rate		3.0%								
Collection and Credit Loss		3.0%								
Accounts Receivable Turnover		90 days								
Accounts Payable Turnover		30 days								
Revenue Assumptions:										

Initial Investment (Year 1) Assumptions

(\$ in 000s)

Initial Investment						Description	Source
	# Needed	Cost	Total	% of Total			
Facility							
One-Time							
Laboratory Materials	2	\$	2	\$ 4	0.5%	Lab materials/supplies for lab per Laboratory	Entrepreneurs
fMRI Rental Cost	1	\$	600	\$ 90	11.0%	fMRI machines - rent time at \$600/ hour, approximately 150 hours (1)	Entrepreneurs/Research
Other Costs to Test and Compile Data, etc.		\$	10	\$ 10	1.2%		Entrepreneurs
Laptop Computers /Hardware/Software	3	\$	1.5	\$ 5	0.5%	Laptops for office use and data processing; Think Pad pricing	Entrepreneurs
Initial Fixed Assets			\$ 109	13.3%			
Depreciation Life							
Maintenance Capital Expenditure							
Lab Rental	1	\$	80	\$ 80	9.8%	Lab/Testing Space / Corporate Headquarters	CBRE, JLL
Human Resources							
Year 1							
Research / Concept Development							
Scientists - Data Interpretation	1.5	\$	120	\$ 180	22.0%	Top analysts from recognized institutions	Salary.com and Glassdoor.com/ Entrepreneurs
Scientists - Data Extraction	1	\$	120	\$ 120	14.7%	Top analysis from recognized institutions	Salary.com and Glassdoor.com/ Entrepreneurs
Software Engineers / Technicians	1		70	\$ 70	8.6%	Top engineer from recognized institutions (hourly basis as needed)	Salary.com and Glassdoor.com/ Entrepreneurs
Total R&D			\$ 370	45.2%			
Admin/Mktg Assistant	0.5	\$	70	\$ 35	4.3%	Part time - Ability to coordinate office, communications, website dev, etc.	Salary.com
Controller / Accountant	0.25	\$	40	\$ 10	1.2%	Outsource during year one	Salary.com
Manager/ Project Coordinator	0	\$	-			Project coordination will be covered by Emsembl team	
Sales Executive	0		-	\$ -	0.0%	Defer all corporate salaries year 1	
Total Salary Expense			\$ 45	5.5%			
Year 1 and Start Up Costs							
Pre-Opening Sales and Marketing			75	9.2%	Major Membership Assoc, Website Dev, Travel, Presentation Mats., Other	See Marketing Pre-Opening detail /Entrepreneurs	
Legal Fees			90	11.0%	Incorporation, patents, licensing agreements and other legal documents	Primary Research; Entrepreneurs	
Patent / Licensing (Year 1)			50	6.1%	Incorporation, patents, licensing agreements and other legal documents	Primary Research; Entrepreneur: Adam Bazih	
			-		Chicago Booth Global New Venture Challenge		
Initial Expenses - Year One			\$818				
(1) Number of Studies - Estimation							
	<u>Hit</u>	<u>Flop</u>	<u># of Age Groups</u>				
Genre 1	3	3	1	6			
Genre 2	3	3	1	6			
				12			
Number of Subjects (fMRI's) per Study	30						
Average fMRI Time/Hour per Subject	40%						
				360			
Total Number of Hours Year 1	144						
Round Up	150						

21-Jan-16

Key Assumptions

APV - VC Perspective

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
EBIT	\$ -	\$ (337)	\$ (413)	\$ 11,295	\$ 24,235	\$ 45,334	\$ 48,551	
Cash Tax @ 35.0%	-	-	-	-	-	-	-	
EBIAT	-	\$ (337)	\$ (413)	\$ 11,295	\$ 24,235	\$ 45,334	\$ 48,551	
Depreciation	-	-	-	-	-	-	-	
Capital Expenditures	-	-	-	-	-	-	-	
FCF	\$ -	\$ (337)	\$ (413)	\$ 11,295	\$ 24,235	\$ 45,334	\$ 48,551	
Terminal Value: Multiple 11 x							534,062	
Total FCF		(337)	(413)	11,295	24,235	45,334	582,613	
Discount Factor @ 15.0%	1.000	0.870	0.756	0.658	0.572	0.497	0.432	
PV of FCF	-	-	-	7,427	13,857	22,539	251,880	
Sum of FCF	295,702							
(-)Debt	-							
Sum of FCF	295,702							
Investment (Year 1-2)		(750)						
Net Present Value w/ TV	294,952							
NPV w/o TV	64,062							
IRR =	248.8%	\$ (750)	\$ -	\$ -	\$ 7,427	\$ 24,235	\$ 45,334	\$ 582,613