LIVECROSS! FILLING THE MISSING LINK OF EFFICIENCY

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Abstract

Vivaki Advance devised indicators measuring the contribution of each medium to a better understanding and effective advertising across multi-media contexts. Beyond the distribution of contacts, the goal was to build a tool which enabled them to test whether a certain media selection met efficiency targets. An indicator of advertising perception was proposed that goes beyond the performance evaluated by the Médiamétrie Cross Media tool, with six criteria for each of the four major media (TV, Radio, Press and Internet).The six criteria are attention, satisfaction, image, usefulness, opinion and buzz. Taking into account the objectives of the communication strategy and settings in which the messages are conveyed, the tool helps users to optimise the construction of strategic recommendations for Vivaki Advance's clients.

In this paper we present our thinking and the *study we designed to gather the information. Given the* importance of the project, we set up a work force with the CESP (the body in charge of audience studies audits in France). The study has not been audited by the CESP; it was a consultancy task force who helped us mainly in the setup phases of the study. We carefully ran a full pilot from which we derived precious learnings in designing the whole process. The project was nicknamed LIVE CROSS!

Initial thoughts: t*here is a missing link between audience and sales*

The initial start point within Vivaki Advance was the search for the 'missing link': the conversion of exposure into effective contacts through the message. Upward, we have all the audience measurement tools from which we get estimates and projections. Downward, we are armed with numerous models of advertising effectiveness, from simplistic ones (response curves) to more refined - those who can derive estimates of each medium's marginal contribution in multi-media contexts. However between those two there is still a lack of intermediate descriptors, to understand, assess and pilot the path from audience to advertising efficiency.

The landscape is more complex than ever

We are not going to make here yet another chapter on fragmentation, de-linearization … and the increasing complexity of the landscape: it has been discussed to death. It is just to have this in mind, as the consequences in our context are clear: we had to drop traditional taxonomies and siloes approaches as not relevant in this context.

Thinking from the beginning in terms of cross media (we mean crossing, not only summing up)

Despite the availability of dedicated tools, the media measurement today is still too much viewed in terms of silos. Those silos are then too often added independently (TV + Radio + Internet…) and as a consequence, we fail to integrate the relationships between the media and the ads they carry. The Cross Media tool available at the time we launched our project was the one provided by Médiamétrie (we'll give a brief description later). In contrast to some other Europeans countries, there is no genuine cross media service in France, beyond the simple de-duplicated coverage scores provided by it. However, from the beginning we didn't wanted to build another Cross Media system, because we wanted to capitalise as much as possible on the existing ecosystem, which is now widely accepted by the market. So our idea was to *top up* the existing ones with additional indicators and functionalities to get cheaper and shorter 'go to market' solution.

Traditional taxonomies do not fit all situations

Media have been splintered through the diversification of consumption habits and the multiplication of access technologies. We are proposing the notion of media 'blocks'; a combination of channels that share similar characteristics.

Our paper seeks to fill the gap between audience and efficiency in a much more complex ecosystem. A survey was conducted with the goal of identifying indicators to describe the intermediate steps. The paper is organised in the following sections:

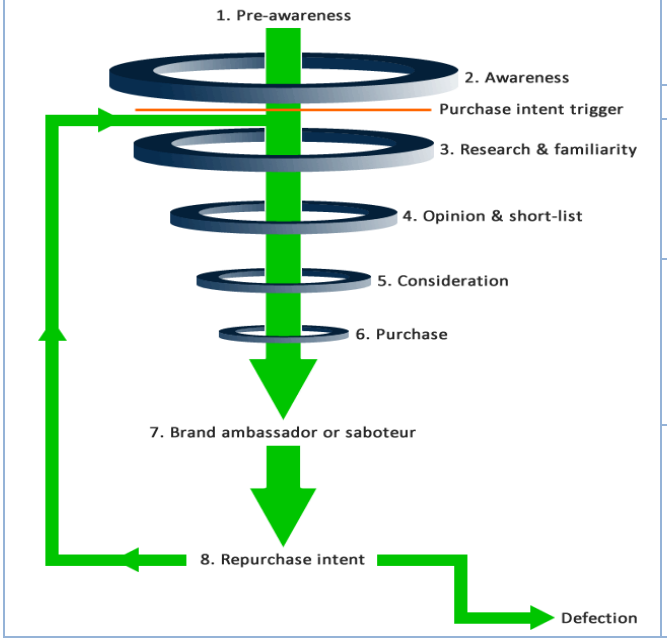
- First, we expose the rationale behind the different key indicators, why we choose them and which part of the gap between audience and advertising effectiveness they will (attempt to) fill.
- Then we offer a short description of the Cross Media tool in France, its relationship to similar tools around the world and some the applications we have made with it.
- After that we detail the challenges we had to overcome when setting up and conducting the survey (questionnaire design, flow, interfaces, respondent burden handling, dropout rates etc.), and bringing it to life (specifically the integration of current Media planning tools for exploitation in a Cross Media context).
- The last part of our paper offers a real example using this tool within the Vivaki team. We finish with our thoughts on the study and suggesting how best to move to the next stage: covering new media, devices (mobile, outdoor…) new KPIs and a more flexible way of building media blocks.

The key indicators: filling the gap

This project was not designed to set up a brand new theory, but to select some relevant criteria for measuring the contextual value of media. We also wanted to ensure they fit comfortably into the two key frameworks of Marketing (advertisers) and Communication (creative agencies).

For the marketing side we took a pragmatic approach, based around the logic of the purchase funnel. Since the first so-called 'AIDA' model (Awareness, Interest, Desire and Action) was created, many different versions have been proposed, but the fundamental stages remain the same. Variations of shape, in the number of stages and in the duration of the process have been suggested, depending on both the consumer and the nature of the product. Below is our version, taken from: http://www.marketing-made-simple.com/articles/purchase-funnel.htm

Table 1: The 6 key indicators in a Marketing Frame: the Purchase Funnel.

Purchase funnel	Step	Indicator
	Awareness	Attention
		Approval / Satisfaction generated by the media
	Image	Commercials positive image
	Opinion / Consideration	Usefulness of information delivered by the commercial
		Opinion upon the commercial contribution / informative value
	Purchase Intent	No indicator retained, direct questioning is prone to too much bias on this area
	Ambassador / neutral / detractor	Ability to generate and spread Buzz into 5 major sectors

From a communications point of view, these 6 indicators can be grouped into three : those related to the medium (attention, approval), those related to ad perception (image, usefulness and opinion), and those related to ad effect (Buzz).

Table 2: The 6 key indicators in a Communication Frame

AREA	Key indicator
1. Related to the medium	Attention
	Approval / Satisfaction generated by the media
2. Ad perception	Positive image of the commercial
	Usefulness of information delivered by the commercial
	Opinion of the commercial contribution / information value
3. Ad effect	Ability to generate and spread Buzz into 5 major sectors

This approach thus links both to the Communications and the Marketing frames of reference, enables consideration of one or more indicators based on communication objectives, and facilitates control by the strategic planning or sales teams within media agencies in refining the strategy before the media planning stage.

Some background: the Cross Media tool in France

Our paper is not about the Cross Media approach in France and how it is derived from a Hub survey. But before going further in describing our own study, it is worth understanding its major characteristics, since our proposition relies on it as a starting point.

With many players in the industry not buying into the very idea of fusion, cost constraints, initial weaknesses exhibited by the CESP and a lack of communication from Médiamétrie, the integrated database had a slow start. However, it is now widely accepted as a valid tool and is starting to be used by media agencies in their multi-media decision-making.

The context and the origins

As in most countries, in France the key audience currencies have been measured separately, each to a high level of dedicated technical expertise. With the increasing complexity of the landscape, the market recognised that there was a need for cross media information to feed the campaign planning process. A group led by two joint industry committees launched the study in 2008.

The two initiators were Médiamétrie (TV, Radio, and Internet) and Audipresse (Press), followed a year later by Affimétrie (Outdoor). They quickly turned toward data integration techniques using data fusion, preferring this to the idea of launching a new syndicated single-source survey.

The basic principle of the Cross Media tool in France is to simulate the results of a single source survey through models based on the information common to a series of independent survey databases. The currencies for TV, radio, press and internet have been integrated using respondent level data fusion techniques. The rationale behind that was that it required no additional (and expensive) primary research, it fitted easily into existing systems and enabled the harnessing of the best available currency measurements from dedicated surveys. Granularity and modeling challenges were considered minor limitations compared to the benefits.

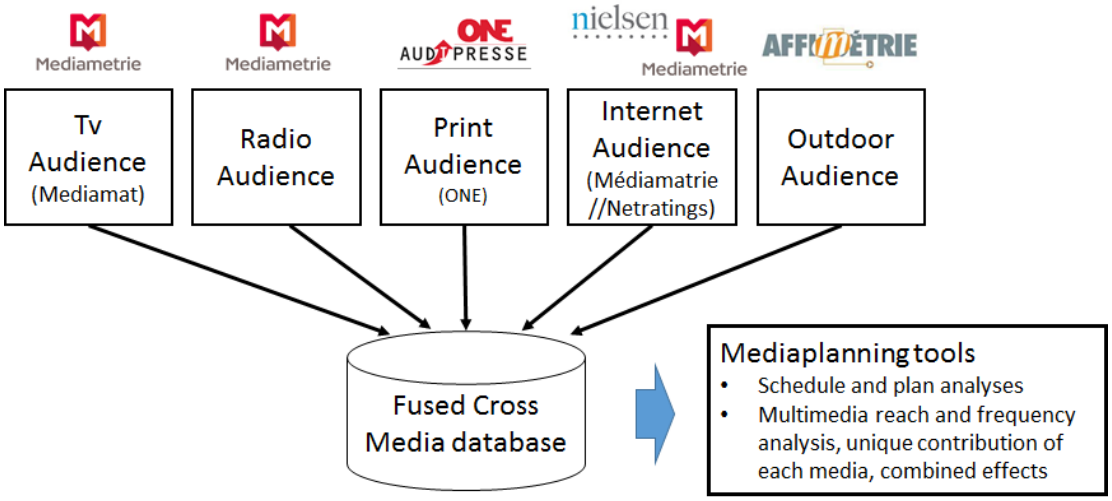
Current design and usage

The Cross media tool is organised around a dedicated Hub survey, which is the recipient database each media survey is linked to. Each individual in the Hub survey is assigned one or several twins of each reference media survey. In this respect it is similar to what is done in the IPA TouchPoints Hub Survey. The outputs of the Cross Media study are similar to those of the Integrated Planning Database. The user defines the input for each media event by the number of times it is used in an advertising schedule or the required audience size or GRPs. The output is a multi-media reach and frequency analysis, showing the unique contribution of each component media and their combined effect.

The formal description of the techniques used is beyond the scope of this article and Médiamétrie does not reveal full details of the method used. However, we can say that it's a constantly evolving process: since the first attempts in 2008, three versions have been proposed to the market, following intense testing and review by the CESP. Following initial audits by the CESP, the more recent versions corrected initial weaknesses by supplying a larger and better balanced Hub survey with more refined data fusion techniques.

For an empirical and applied review of data fusion techniques, the reader can refer to: [Soong_de_Montigny_2001]. For a more formal review of the statistical matching techniques employed; one can refer to: [Moriarty_2001] and [Rässler, 2002]. The current technique used by Médiamétrie is a constrained matching approach detailed in [Rässler, 2002, pp57]

Figure 1: Schematic Cross Media flow with the 3 JIC at stakes



The research

We faced three challenges to overcome when thinking of the design for the survey. The three (THIS IS FOUR??) challenges were the recruitment phase, the creation of synthetic and relevant indexes from the KPI, the questionnaire itself, and the integration into existing media planning tools.

Recruitment

All the survey steps (recruitment and interview) were carried out by CAWI on the IPSOS access panel. We were aware of the selection and coverage biases when interviewing people on market research companies' access panels, and a two-step phase with telephone recruiting and then CAWI questionnaire completion would have offered a better control on selection, but it was too costly. Hence this study suffers from certain limitations of coverage and selection bias.

The coverage limitation is a result of the non-inclusion of people with no access to internet, but it was accepted since our study is really about cross and multi-media consumption. Non internet users are not really in our scope of interest. Selection bias is present because people belonging to access panels and people responding to surveys in it are obviously not randomly selected from the general population: they are more aware of technologies and new products and their media habits are not those of everyone.

On the other hand, our study was not designed to fix currency levels, -we'll inherit them from the Cross Media-, but to get marketing-related indicators, so those biases were not considered fatal; they merely narrowed a little bit the target to its heart. To alleviate this, special attention was devoted to less regular users of internet. People belonging to an access panel are by design more often heavy users than the general population of internet users: we constrained the sample to represent the less regular users in sufficient quantities and post stratified it with objectives taken from reference surveys. As we already said, a full pilot was carried out on this survey and this point has been of particular attention: questioning, number of (re)solicitations, delay accorded for late responses, incentives …

The creation of a relevant advertising index:

Among the objectives of Vivaki was the desire to get a unique indicator derived from the 6 criteria, a sort of KPI, called IPP which stands for 'Indice de Perception Publicitaire' (Advertising Perception Index). However, this idea was in clear opposition with the very definition of the 6 criteria, each chosen to reflect a particular part stage of the purchase funnel, and hence specific communication objectives. So, any kind of a priori fixed unique index calculated by direct or weighted average (factor analysis …) of the 6 criteria will inevitably dilute some specific area we would have liked to push depending on the context. We finally proposed a 7th indicator, a tailor made IPP with adjustable weights depending on the communication objectives.

The IPP is then in the form:

$$IPP = \frac{\omega_1 ATTENTION + \omega_2 APPROV. + \omega_3 IMAGE + \omega_4 USEFULNESS + \omega_5 OPINION + \omega_6 BUZZ}{\sum_{i=1}^{6} \omega_i}$$

In the software we developed, the user was allowed to freely adjust the different weights from the interface, depending on the objectives of his research, by means of 'sliders' on the ribbons. Hence, relative high values for □□□□□□□□□□ would reflect the will to work on awareness and image the first end of the funnel, on the opposite, high values for □□□□□□□□□□ would be for consideration and propensity to (re)purchase, the other end of funnel. Actually this feature is unlocked only for the 'power' user in the software to keep a better control on what is done by who… By default the equal weighting scheme, and certain predefined weighting schemes are activated to all users.

The notion of media blocks:

In France there are dozens of TV channels in Mediamat, more than 200 newspapers and magazine in the ONE survey, hundreds of websites above the publication level in Nielsen//Netratings, …crossed with the *multiplication of access technologies.* The grouping of individual supports in media blocks was necessary to go further than the traditional taxonomies and also to simplify the design of the study and the survey.

However, in this wave, we stick within the 4 main media definitions (TV, Radio, The Internet, and Print) and made subgrouping within each. We could have gone further in the media block definitions by breaking the 'blocks', or allow the user to do so, but for this release we were constrained to stick to single-medium arrangements. The reasons were to enable a better integration in current media planning tools with far less development risks: time, costs, regressions… Indeed, once we were cleared to launch the study we had a short timeframe and no possibility of extra development costs. The blocks were determined by means of expertise within Vivaki Advance's teams and confirmed by means of statistical techniques (C&RT segmentation trees and supervised clustering). Two supports were assigned in the same block if they shared common characteristics mainly in terms of affinity with specific targets. Current market usages were also put in the balance. For the next wave, we plan to give the user the possibility to build personal media blocks a posteriori from within the software interface by grouping individual supports or smaller groups of media.

At the end we got 44 media blocs, across the 4 main media, as shown below:

Medium	# of blocks
Print	19
TV	11
Radio	4
Internet	10

To fix idea, here are two examples of media blocks (grouping of individual supports in clusters).

Figure 2: The 11 media blocs for TV

TF1 / M6	Les autres grandes chaînes généralistes	Mini-généralistes	Information	Jeunesse	Musique et Culture urbaine
TF1	France 2	TMC	LCPAN	Gulli	Direct Star
M6	France 3	W9	BFM TV	Canal J	NoLife
	Arte	Direct 8	I Télé	Piwi	MCM
	France 5	NRJ 12	France 24	Tiji	gameOne
	Canal +	NT1	LCI	Boomerang	M6 Music
		France 4	Euronews	Teletoon	NRJ Hits
		RTL9		Disney	MTV
		Teva			Mangas
		TV Breizh			
		Paris Première			

Sport	Documentaires	Chaînes de cinéma	Séries / Fiction	VOD et TV de rattrapage
Eurosport	Planete +	Canal Cinéma	Sci-Fi	M6 replay
Foot +	Voyage	Ciné +	Comédie!	TF1 Vision
Equipe TV	Histoire	Orange Cinéma Séries	13ème Rue	Canal Play
MCS	Stylia	Canal family	Série Club	Canal+ à la demande
Info Sport	Animaux		TF6	Arte+7
Sport +			Jimmy	Pluzz
			Action	M6 Vidéo

Figure 3: A subset of the 19 media blocs for Print

1 - Presse Quotidienne Régionale	4 - Mode Beauté	5 - Pratique
Votre Quotidien régional	Be	Avantages
2 - Presse Quotidienne Nationale hors gratuits	Biba	Femme Actuelle
Aujourd'hui en France, l'édition nationale du Parisien	Carrefour Mag, le magazine des magasins Carrefour	Femme Actuelle Jeux
La Croix	Cosmopolitan	Maxi
Le Figaro	Elle	Modes et Travaux
Le Monde	Gala	Nous Deux
Le Parisien	Glamour	Prima
L'Equipe	Grazia	Questions de Femmes
Libération	Madame Figaro	Version Femina
France Soir	Marie Claire	**6 - Savoirs**
L'Humanité	Marie France	Ca M'Intéresse
Les Echos, le quotidien économique et financier	Vogue	Dossier Familial
La Tribune, le quotidien économique et financier	Votre Beauté	Historia
3 - Presse Quotidienne gratuite	Psychologies Magazine	Réponse à Tout
20 minutes		Science et Vie
Metro		Sciences et Avenir
Direct Matin		

Two kinds of question: context related and media (block) related

We already discussed the fit within both frameworks: Communication and Marketing. When setting up the questionnaire we added another layer: we had to dispatch them in two categories: context-dependent and medium-dependent. This was obvious for certain questions and a result of discussion for others. *Context*-dependent questions are those related to specific *occasions* within the medium, or certain programs. For example, 'Attention' is obviously related to certain occasions (attention level will not be the same for the 10 last minutes of the semi-finals of Champions League or for a mid-day teleshopping show…). Satisfaction is also linked to certain programs or experiences. On the other hand, it was less the case for the other indicators. After arbitration, we put image, usefulness, opinion and buzz spreading at the medium level. Of course, all our results are analysed at the medium level, not the program support level; we are program or support-neutral. To better illustrate this, here are the questions, and the areas they belong to. We explain our choices hereafter.

Key indicator	Question used	Level	AREA
Attention	**For each context/occasion in each medium block:** would you say you were very attentive, rather attentive, not very attentive or not attentive at all	each **context/occasion** in each medium block	Relation to the medium
Approval / Satisfaction	**For each context/occasion in each medium block:** Would you say that you liked it somewhat, not much or not at all?		
Ads positive image	**For each medium block:** Usually, when you see an advertisement for a product or service on this <*media block*>, would you say it is more likely to gives you a good image on it?	**ads** in each medium block	Ad perception
Opinion about the ads contribution / informative value	**For each medium block:** Would you say you are more likely to know about a product, service or brand you saw the ad in in this <media block>?		
Usefulness of information	**For each medium block:** Usually when you see an advertisement in this <media block>, would you say that you think it deliver useful information?		
Ability to generate positive Buzz	**For each medium block:** Usually, when you see an advertisement for a product or service in this <*FMCG category*> on this <*media block*>, how often would you say you come to talk about it with relatives, friends or colleagues?		Ad effect

As you can see, the two context/occasion questions (attention and occasion) deal with the program/paper/article viewed/read/browsed itself, and not the ads in it. It had been heavily discussed during the workshops, and we decided to do so for many reasons. First, respondent wearout: specific questions on the attention/satisfaction about the ads the interviewee remembers having been exposed to during all his occasions on each media block can be mind-numbingly boring. Second, respondent sincerity: even if they were attentive to the ads, some respondents would not tell us so. And third, risk of confusion with the quality of the copy itself, a risk we cannot control. In addition to Attention and Satisfaction, four questions where added to get a more in depth view of the context around the different occasions (where was it? Was the consumer alone or accompanied by friends or relatives? Did the interviewee have all his attention on the program or was he involved in another activity? …)

Questionnaire flow and the information gathered

The study was organised in two phases: in the first one, after screening, socioeconomics, and media consumption we get the responses for the media block-level questions, for people passing a certain regularity filter. TV brings its additional complexity layer, with time grids; the cell for TV was the media block crossed with time grids. Below is the organisation for the first step questionnaire, with the questions asked in it.

RECRUITMENT + USAGES + BLOCK LEVEL QUESTIONS	PRINT	TV	RADIO	INTERNET
Number of blocks	**19**	**4**	**3**	**10**
Frequency : by block	x			x
Frequency : by block x time grid		x		
Frequency : by block x location			x	
Filter : for people passing filter, by block/grid/location				
Commercials positive image	x	x	x	x
Opinion about the ads contribution / informative value	x	x	x	x
Usefulness of information	x	x	x	x
Ability to generate positive Buzz	x	x	x	x

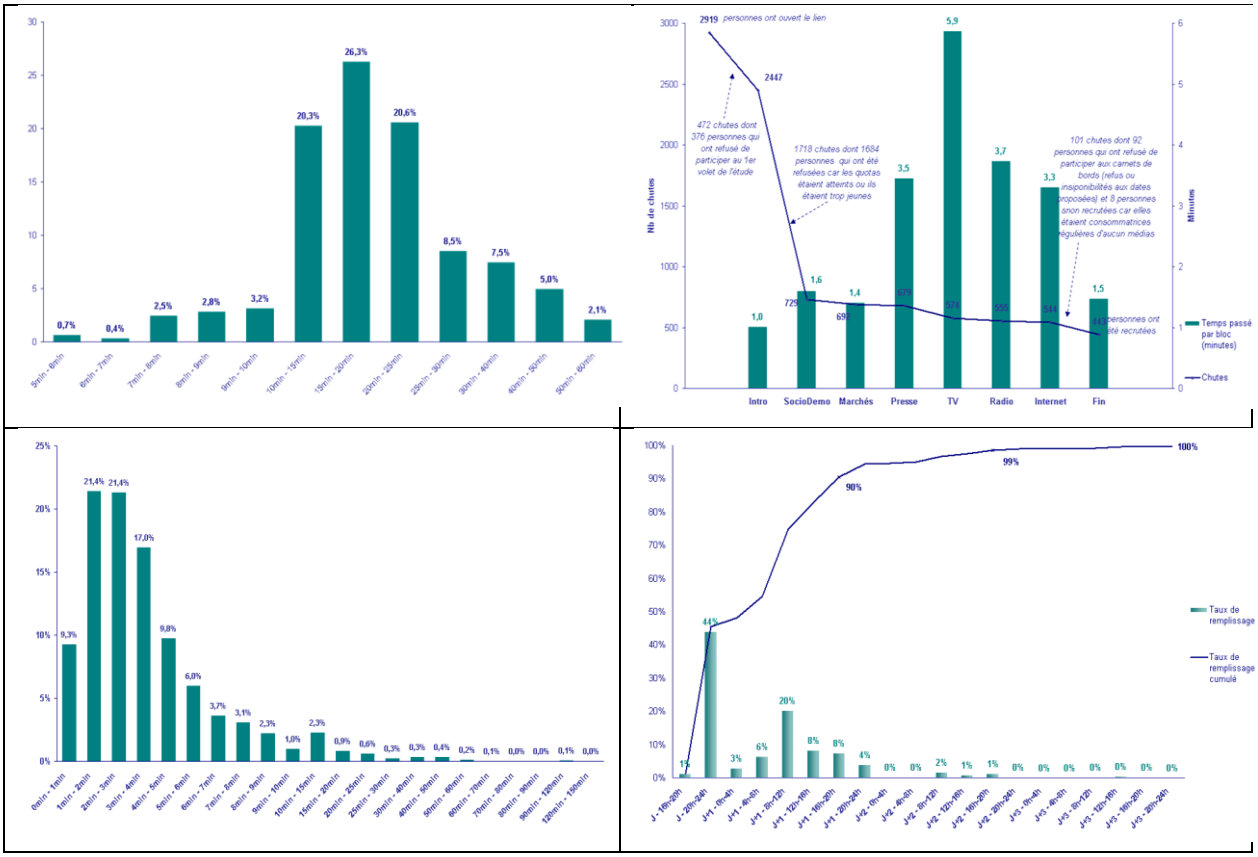
The second part of the questionnaire is a 10 day dairy, administrated to those passing the frequency filter.

DAIRY	PRINT	TV	RADIO	INTERNET
Number of blocks	**19**	**4**	**3**	**10**
Media consumption the day before	x	x	x	x
Filter : for people having had a contact with the block the day before				
Time grid		x	x	
Attention	x	x	x	x
Approval / Satisfaction	x	x	x	x
Additional environment variables				
With who? (Alone or with friends and relatives?)		x	x	x
Where? Location	x		x	x

The survey

All the process has been fully piloted on 300 respondents, the outputs of which were of great value when setting up the real study. Many aspects of the study were optimised following it: incentive levels, dropout rates at different steps, duration of the diary, timestamps, the best moment to complete the diaries, media block refinement, grid optimisation, formulation of questions, layout, optimisation of the recruitment of non-frequent internet users,…In particular, the diary was initially designed with a duration of 9 days (5 weekdays + 2 weekends); we added an extra day which was filtered out at the analysis to allow for warm-up following the analysis of pilot data by day. We also allowed for extended completion periods and the possibility of completing up to three days at once: not everyone is at home to fill in a diary for 10 days straight. All those optimisations were decided and arbitrated with the CESP during the workshops we had. The main questionnaire for recruitment, measure of usage and frequency level estimates, had an average duration of 22 minutes. The diary has a length of 4 minutes. Below are some technical outputs we got from the pilot and the study. From left to right and to bottom we have : distribution of filling times for the recruitment survey, drop rates by steps overlaid with durations, distribution of filling times form the diary, distribution of delayed times for the diary (up to + 3 days).

Figure 4: A subset of outputs from the pilot we used to optimise the real survey



Analysis

At first, let's give some sample sizes: the Cross Media central hub is made up of 10,000 individuals. Our study involves 3,268 individuals and more than 25,000 dairy responses for the 9 days of interest. We allowed for incomplete diaries: once 3 days were filled they were included in the computations. This was decided to limit the non-response bias by favouring 'good' respondents. We included incomplete diaries, but no imputation was made: our tests of multiple imputations revealed a too high level of variance between individual and aggregated imputed values [Raghunathan_2001] [DeMoliner_Perie_2009]

The outputs of the study are in the form of group averages (relative indexes), by media block, nested by socio demographics and recency and frequency groups, for the 6 indicators.

The level of nesting is then: $Block_i \otimes SocioDemographic_j \otimes FrequencyGroup_k (marginals\ and\ crossed)$

The coefficients are all stored in a database and are matched with the Cross Media using the nesting key. The 'matching' itself is not done physically but in memory by pointing into the database of coefficients and making the correspondence between the targets and the media involved in the current plan. It is important to note the *cross frequencies between different blocks* were *also integrated in the matching criteria list*; it was possible to do so thanks to the grouping of individual supports within each block.

Like any matching procedure, we are making the hypothesis that the two matched parts are independent when conditioning on the matching criteria. This is why the integration of some constraints in terms of cross frequencies is important, because at the end we wanted to stay in a multi-media context.

The computed means were not direct arithmetic means, but *least squares adjusted means*. Computing and comparing arithmetic means within-group is familiar, for simple one-way and balanced designs. However, in unbalanced designs with more than one effect, the arithmetic mean for a group may not accurately reflect the "typical" level for that group, since it does not take other effects into account.

Without going into too lengthy details, some cells (nests, in our nesting scheme) were heavily unbalanced or with too few observations to draw consistent estimates, hence the use of smoothing and balancing by LS-Means. LS-means are, within-group means appropriately adjusted for the other effects. More precisely, they estimate the marginal means for a balanced population (as opposed to the unbalanced design). For this reason, they are also called estimated population marginal means. Marginal and first order crossed group means were included in the models to account for unbalance between distributions, and

get sufficient frequencies for consistent estimators. See [Goodnight, 1978] and [Goodnight 1978b] for more details on Least squares means.

The match with the current media planning tools

The study has been loaded in Poppy (the Mediaplanning suite edited by IPSOS/IMS Sysprint), and the 'Cross Media' module of Poppy has been tailored to run the matching between the Cross Media database and the study. Below are two screenshots of the software.

Figure 5: Poppy Cross Media windows on a Press+TV+internet plan showing 4 individual KPIs and the IPP

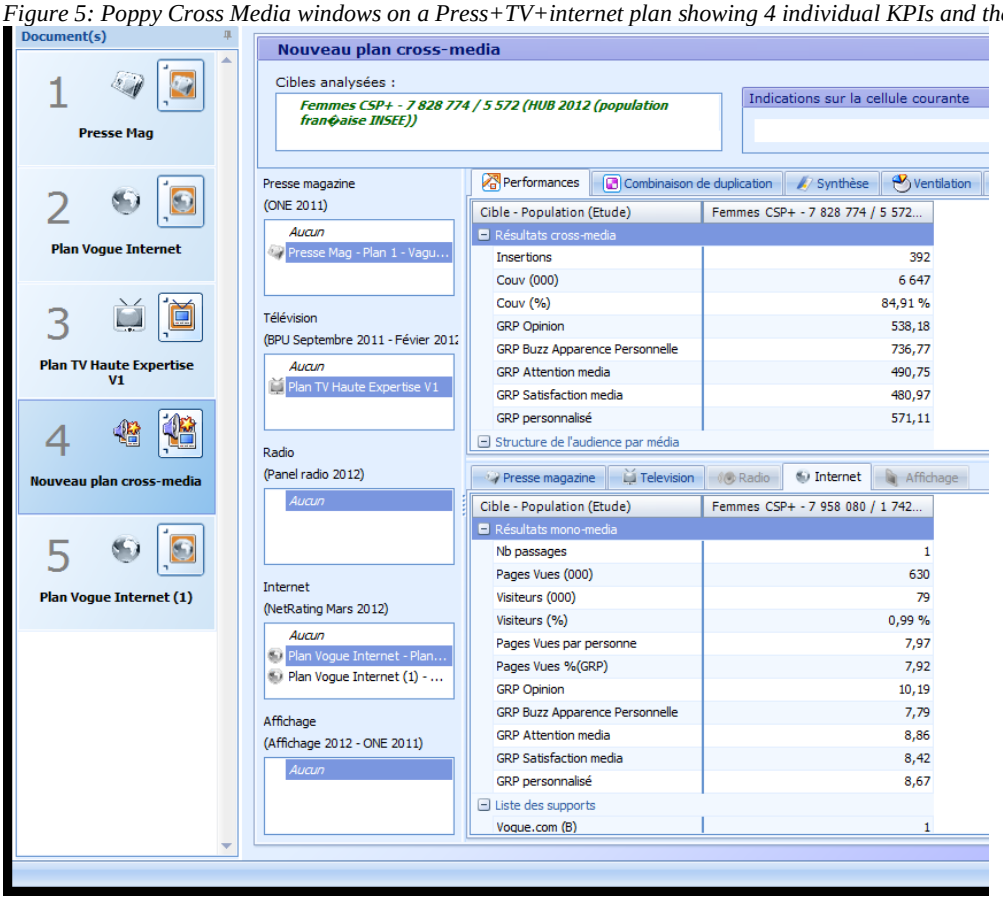
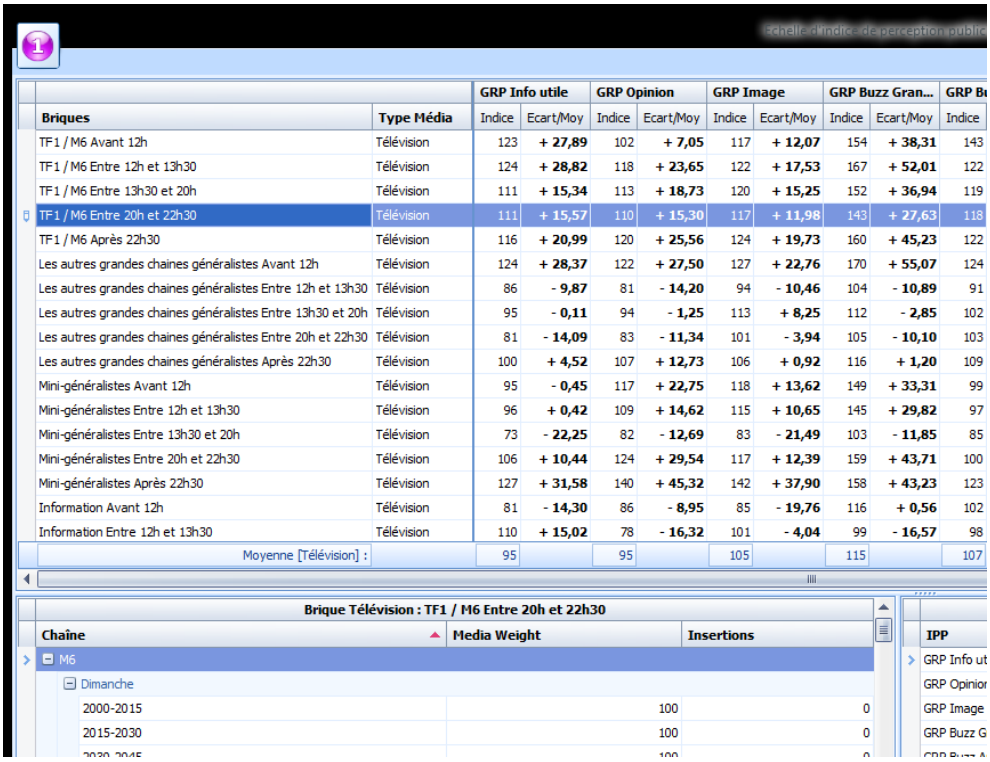


Figure 6: Poppy Cross Media – same plan - detail on TV blocks



Briques	Type Média	GRP Info utile Indice	GRP Info utile Ecart/Moy	GRP Opinion Indice	GRP Opinion Ecart/Moy	GRP Image Indice	GRP Image Ecart/Moy	GRP Buzz Gran... Indice	GRP Buzz Gran... Ecart/Moy	GRP Bu Indice
TF1 / M6 Avant 12h	Télévision	123	+ 27,89	102	+ 7,05	117	+ 12,07	154	+ 38,31	143
TF1 / M6 Entre 12h et 13h30	Télévision	124	+ 28,82	118	+ 23,65	122	+ 17,53	167	+ 52,01	122
TF1 / M6 Entre 13h30 et 20h	Télévision	111	+ 15,34	113	+ 18,73	120	+ 15,25	152	+ 36,94	119
TF1 / M6 Entre 20h et 22h30	Télévision	111	+ 15,57	110	+ 15,30	117	+ 11,98	143	+ 27,63	118
TF1 / M6 Après 22h30	Télévision	116	+ 20,99	120	+ 25,56	124	+ 19,73	160	+ 45,23	122
Les autres grandes chaines généralistes Avant 12h	Télévision	124	+ 28,37	122	+ 27,50	127	+ 22,76	170	+ 55,07	124
Les autres grandes chaines généralistes Entre 12h et 13h30	Télévision	86	- 9,87	81	- 14,20	94	- 10,46	104	- 10,89	91
Les autres grandes chaines généralistes Entre 13h30 et 20h	Télévision	95	- 0,11	94	- 1,25	113	+ 8,25	112	- 2,85	102
Les autres grandes chaines généralistes Entre 20h et 22h30	Télévision	81	- 14,09	83	- 11,34	101	- 3,94	105	- 10,10	103
Les autres grandes chaines généralistes Après 22h30	Télévision	100	+ 4,52	107	+ 12,73	106	+ 0,92	116	+ 1,20	109
Mini-généralistes Avant 12h	Télévision	95	- 0,45	117	+ 22,75	118	+ 13,62	149	+ 33,31	99
Mini-généralistes Entre 12h et 13h30	Télévision	96	+ 0,42	109	+ 14,62	115	+ 10,65	145	+ 29,82	97
Mini-généralistes Entre 13h30 et 20h	Télévision	73	- 22,25	82	- 12,69	83	- 21,49	103	- 11,85	85
Mini-généralistes Entre 20h et 22h30	Télévision	106	+ 10,44	124	+ 29,54	117	+ 12,39	159	+ 43,71	100
Mini-généralistes Après 22h30	Télévision	127	+ 31,58	140	+ 45,32	142	+ 37,90	158	+ 43,23	123
Information Avant 12h	Télévision	81	- 14,30	86	- 8,95	85	- 19,76	116	+ 0,56	102
Information Entre 12h et 13h30	Télévision	110	+ 15,02	78	- 16,32	101	- 4,04	99	- 16,57	98
Moyenne [Télévision] :		95		95		105		115		107

Brique Télévision : TF1 / M6 Entre 20h et 22h30

Chaîne	Media Weight	Insertions
M6		
Dimanche		
2000-2015	100	0
2015-2030	100	0

IPP
GRP Info ut
GRP Opinior
GRP Image
GRP Buzz G

Example of application, campaign optimisation

The tool allows users to take into account specific objectives of the communication in the development of the means strategy. Below is an example. Based on an existing multi-media disposal, we evaluated the contextual contribution (IPP - Advertising Perception Index) plan by picking criteria in affinity with communication objectives. The proposition was to optimise this index by identifying the most efficient building blocks.

Context of the campaign

This was the launch of a new franchise in the portfolio of a Hair care category leader. The IPP was built upon those of criteria based on the objectives of the communication: building image, creating buzz. The targeted Population was women CSP +

Criteria	Weighting scheme
Attention	20%
Approval / Satisfaction	30%
Ads positive image	20%
Buzz	30%

The media plan

The plan is pretty much the industry practice for this type of consumer product but positioned upscale. Majority of Television (69% of the budget), and Press (28%) supplemented by a presence on a website (3%).

Findings

First finding, all media : the plan builds valid communication objectives on the basis of four criteria with a synthetic score of 117 (a weighted score for this dispositive 17 points higher compared to the grand mean for the four media). **Second finding by medium:** The press gets the highest score with 151 overall. The titles used in the initial plan all belong to the *'Feminins haut de gamme'* (Upscale women magazines) with this index of 151. The 'People' block index is 145, but possible room for optimisation are in the media block *'Feminins Pratiques'* with an index of 165. TV has 112, highest scores are for the generalist channel, 130 for M6 before 13h30, 126 for France 2 on morning and 124 for TF1 between 12h and 13h30). The site picked in the plan was belonging to the block with the highest score (130). **Conclusion:** The tool has streamlined the initial choice by completing the initial mechanism with more Press because it has the higher scores according to the communication objectives and expanding its selection as introducing the *'Feminins Pratiques'* in the Press dispositive. Until then this family was rejected because not perceived as 'premium' enough.

More general findings

Being a classical survey, the study gave us some interesting general findings on media perception, apart of its use in operational context for campaign optimisation.

- The fragmentation of media does not penalize their ability to catch people's attention : 80% of them say they are attentive.
- Their vision of advertising is rather positive: they are 54% to report having a good image of a product whose advertising has been viewed / heard, and 41% to feel that the information provided by the ad is useful.
- The Buzz effect is not to be neglected : nearly a third of respondents, actually talk with their parents, friends or colleagues after viewing/ hearing an ad.
- The media contextualization is a valuation criterion for commercials: thus, press is the favorite advertising support (Usefulness: 65%, Comments: 54% and Image: 67%)
- Beyond the media, contexts and thematic programs have been identified in the tool to allow comparisons within and between the media and by target. For example, the TV 'Mini-généralistes' cluster in the morning is as strong as the Internet to generate buzz among the 35-49 age group in the market for technology products...

Conclusion and further developments

This first wave of 'Live Cross' paved the way toward more advanced uses of the Cross Media tool. Thanks to its good integration within the Poppy Mediaplanning system, it is an ideal complementation to the Cross Media system. It is now possible for Vivaki Advance to deal with intermediate and area-specific indicators and measure the contribution of media to better understanding and effective advertising. Vivaki Advance has now access to more 'qualitative' and sensible indicators, beyond the basic 'quantitative' ones (reach, de-duplicated reach, marginal contribution by medium). The attention we put in all the phases of this process was really rewarding: in particular the low attrition rates and the consistency of many of the findings with industry knowledge helped us in building reinsurance when installing this tool. In the next wave to come to update it, we will be to add some extra flexibility especially in the media block building, and new devices (mobile), but most of the actual features will remain the same. Outdoor is still viewed as a challenge at this point.

Selected bibliography

Christopher L. Moriarity, Fritz Scheuren (2001): Statistical Matching, Pitafalls of current procedures, in Proceedings of the Annual Meeting of the American Statistical Association, August 5-9, 2001.
http://www.amstat.org/sections/SRMS/Proceedings/y2001/Proceed/00550.pdf

Goodnight, J. H. and Harvey, W. R. (1978): Least-Squares Means in the Fixed-Effects General Linear Models, Technical Report R-103, SAS Institute Inc, Cary, NC.

Goodnight, J. H. and Speed, F. M. (1978): Computing Expected Mean Squares, Technical Report R-102, SAS Institute Inc, Cary, NC.

Rässler, Susanne (2002): Statistical Matching: A Frequentist Theory, Practical Applications, and Alternative Bayesian Approaches (Springer, Lecture Notes in Statistics LNS 168)

Périé, Philippe, De Moliner, Anne (2009): Imputation multiple de données catégorielles, une approche basée sur un modèle Multinormal Latent – (Multiple Imputation of categorical data, an approach based on a latent Multivariate Gaussian model) Communication aux Xème journées de Méthodologie Statistique, de l'INSEE
http://jms.insee.fr/files/documents/2009/82_2-JMS2009_S10-5_DEMOLINER-ACTE.PDF

Soong, R. and de Montigny, M. (2001): An anatomy of data fusion. Tenth Worldwide Readership Symposium, Venice (Italy), 87-109.

Trivellore E. Raghunathan, James M. Lepkowski, John Van Hoewyk and Peter Solenberger (2001) A Multivariate Technique for Multiply Imputing Missing Values Using a Sequence of Regression Models Survey Methodology, June 2001 vol. 27, No. 1, pp. 85-95 http://www.statcan.gc.ca/ads-annonces/12-001-x/5857-eng.pdf