



FROM DATA TO VALUE: MASTERING PREDICTIVE ANALYTICS IN RECRUITMENT MARKETING

BY FAYE RUSSELL | 10/07/2014

SR. ONLINE MARKETER

PETER SEGERIUS

- Brazilian 🇧🇷 by nature, Dutch 🇳🇱 by nurture
- Working at **YC** for 6 years
- Started as an intern
- Interest go from creative media campaigns to social media marketing and performance marketing, but it always starts with **DATA**



YOUNG
CAPITAL



NEXT

YOUNG
CAPITAL

19

INHOUSE
LOCATIONS

9

EUROPEAN
COUNTRIES

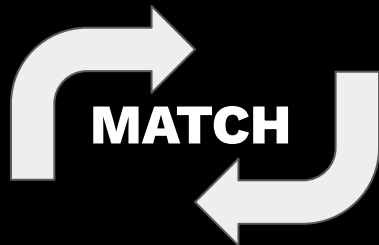
1,2K

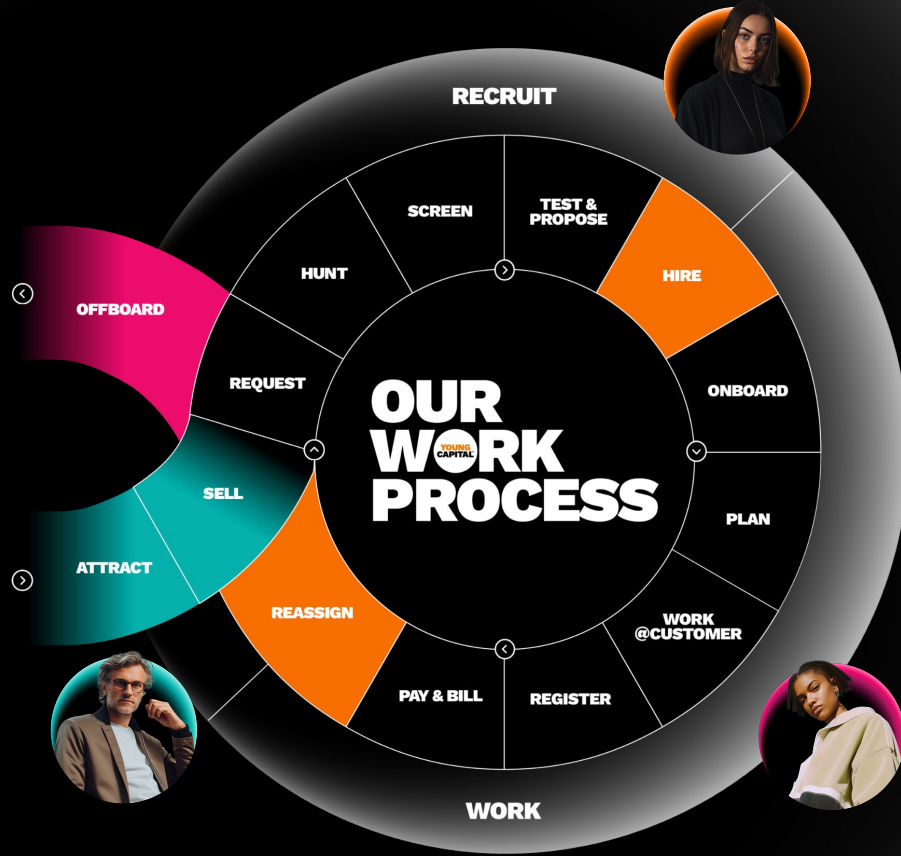
OWN
EMPLOYEES



CUSTOMERS

CANDIDATES





CHALLENGES

YOUNG
CAPITAL

RECRUIT



TOO MANY
CANDIDATE
REJECTIONS

SCREEN

TEST &
PROPOSE

HIRE

HUNT

ONBOARD

OUR
YOUNG
CAPITAL
WORK
PROCESS

PLAN

REQUEST

SELL

WORK
@CUSTOMER

REASSIGN

PAY & BILL

REGISTER

OFFBOARD

ATTRACT

WORK



TIME
INEFFICIENCIES

EXPENSIVE &
VERY REACTIVE

WHAT
CHANNEL MIX?

SUPPLY & DEMAND

BACK TO THE BASICS | 2019

WHERE WE STARTED

- Focusing only on applications
- No synergy between the online marketing channels
- No overview of the open job requests
- Gathering ALL the data

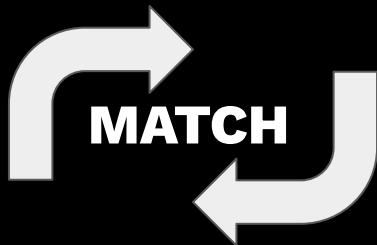
BASICALLY: THROWING SPAGHETTI AT THE WALL.



CUSTOMERS DEMAND



CANDIDATES SUPPLY



PREDICTIVE ANALYTICS

VISION | 2019

We optimally match candidates with open job requests/vacancies through a self-learning and predictive model.

FIRST STEP

VISUALIZE WHAT WE HAVE

CHALLENGE

S

1 HOW TO
HANDLE
ATTRIBUTION

3 UNDERSTANDING
ML/AI MODELS

2 WHAT'S THE
OUTPUT?

4 TO INCLUDE OR
TO EXCLUDE

NOV 2019

DEC 2022



PAMM V1

YOUNG
CAPITAL

DATA
SOURCES /
CHANNELS



ELT



ETL



DASHBOARDING /
VISUALISATION

- PERFORMANCE INSIGHTS
- CANDIDATE SEGMENTS INSIGHTS
- COMPLETE FUNNEL INSIGHTS (ROAS/ROI)



Event date

1 nov 2023 - 30 nov 2023

Vacancy filters

- Job functions
- Job regions
- Job types
- Vacancy ID
- Excl. KNJ?
- Generated by AI?
- GA & platform filters
- event_platform
- Event_source
- event_medium
- event_campaign
- Paid & Non-paid
- B2B vs. B2C
- event_campaign Blevat
- Backend mail type

Requests

- Last unit
- Last workflow
- Last region
- Last company name
- Last work reqe
- Verdeling Business unit
- original_company_name
- WBS Y/N

Candidates

- GA Transactie ID Y/N
- Age
- Age clusters
- Candidate UIID

SUM CPA

Applications 48,481

Applicants 23,454

Hires

Placements 955

Placement with Dec 883

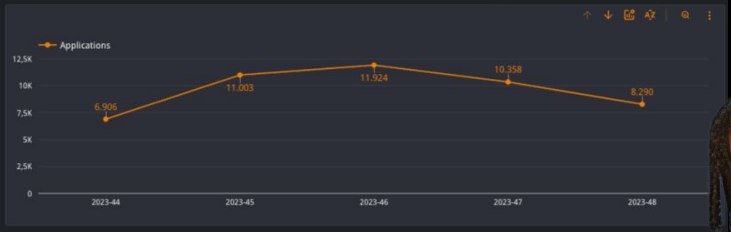
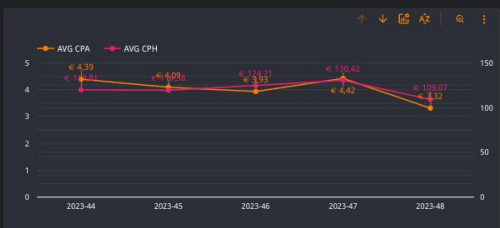
Time to hire 12,56

Hire to PLC start 8,13

PLC start to First Dec 3,69

Time to first Dec 26

PLC start/end (days) 75,64



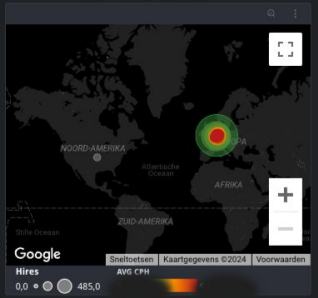
DETAILED TABLE

Source/medium	SUM CPA	% Δ	AVG CPA	% Δ	AVG CPH	% Δ	ROAS	% Δ	Applications	% Δ	Hires	% Δ	Rejected or withdrawn	% Δ	Placements	% Δ	Hire % (Unique)	% Δ	
1. google / google_ads	21.0%	6.2%	15.7%	2.8%	15.7%	-33.4%	14.0%	13,748	14.0%	4.6%	9,354	11.9%	200	-17.4%	200	-17.4%	5.1%	-6.1%	
2. Indeed / feed-paid	58.1%	32.3%	2.8%	92.6%	18.8%	-2.8%	18.8%	887	-26.3%	-10.7%	842	-11.3%	13	-50.0%	13	-50.0%	28.3%	-28.3%	
3. bing / cpc	61.2%	61.3%	18.2%	18.6%	934	-0.1%	15.7%	745	-1.7%	15.7%	745	-1.7%	26	-10.3%	26	-10.3%	22.3%	22.3%	
4. werkzoeken.nl / feed-paid	6.9%	10.1%	5.1%	2.8%	618	18.8%	5.9%	571	19.7%	5.9%	571	19.7%	22	37.5%	22	37.5%	14.7%	14.7%	
5. linkedin / social-ads	14.7%	92.9%	11.8%	34	36.0%	0	-20.0%	4	-20.0%	0	0	0	0	0	0	0	0	0	
6. fb / social-ads	92.9%	0.1%	34	36.0%	0	0	0	34	36.0%	0	31	24.0%	0	0	0	0	0	0	
Total	7.8%	6.8%	13.9%	-10.7%	48,481	0.9%	-5.4%	40,625	0.9%	955	-17.5%	955	-17.5%	955	-17.5%	955	-17.5%	955	-17.5%

APPLICATIONS MAP



HIRING MAP



WEEK ANALYSIS



CANDIDATES SUPPLY



CUSTOMERS DEMAND



Workflow... (3) | unit | request_group: Performing ok...(0) | Beroepsgroepen | Dienstverbanden | Klantnaam | hires

Regio: Geef een waarde... | Aanvraag ID: Geef een waarde... | Beroepsgroepen: Bevat | Geef een... | Wervingsdoel | Aanvraag titel

PREDICTIVE | SUPPLY

Aanvragen
1.443

Totale vraag aan kandidaten
5.660

Nog benodigde kandidaten
4.413

Afgeronde sollicitaties
134.813

Uren
159.921

Nog benodigde uren
1.042

Beschikbare kandidaten
12,24

Percentage
6

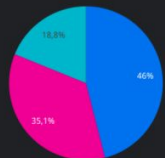
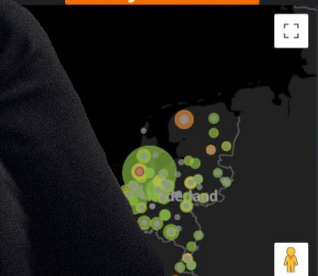
0,98%



Schaarste kaart



Moelijkheids kaart



Workflow



Sollicitaties benodigd

Beroepsgroepen	#	Klant	#	Regio	#
1. Productie	171,5K	1. Young Capital	38,5K	1. Amsterdam	62,4K
2. Callcenter / Customer S...	152,1K	2. ...	33,6K	2. Rotterdam	43,5K
3. Chemisch / Farmaceutis...	65K	3. ...	31,2K	3. Utrecht	20,2K
4. Transport / Logistiek / C...	37,7K	4. ...	27,9K	4. Den Haag	13,5K
5. Financieel / Accountancy	28,2K	5. ...	27,1K	5. Haarlem	9,7K
6. Secretarieel	22,3K	6. ...	24,7K	6. Breda	6,5K
7. Receptionist(e) / Telefon...	15K	7. ...	9,6K	7. Hilversum, Helmond, O...	6K
Totaal	444,1K	Totaal	444,1K	Totaal	444,1K

Uren nog te vervullen

Beroepsgroepen	#	%	Klant	#	%	Regio	#	%
1. Transport / Logistiek / ...	48,5K	36%	1. ...	33,2K	25%	1. Amsterdam	35,4K	26%
2. Callcenter / Customer...	22,4K	17%	2. ...	21,8K	8%	2. Rotterdam	14,7K	11%
3. Recreatief / Sport / To...	11K	8%	3. ...	10,4K	4%	3. Utrecht	11,2K	8%
4. Productie	8,8K	7%	4. ...	8,4K	3%	4. Den Bosch	5,2K	4%
5. Chemisch / Farmaceu...	8,4K	6%	5. ...	8,1K	3%	5. Zwolle	4,4K	3%
6. Winkelwerk / Retail / ...	7,7K	6%	6. ...	7,4K	3%	6. Alkmaar	3K	2%
7. Financieel / Accounta...	7K	5%	7. ...	6,7K	2%	7. Leiden	2,8K	2%
8. Commercieel / Verko...	4K	3%	8. ...	3,8K	2%	8. Nijmegen	2,8K	2%
9. Horeca / Catering	2,3K	2%	9. ...	2,3K	2%	9. Groningen	2,7K	2%
10. ...	2,2K	2%	10. ...	2,2K	2%	10. ...	2,2K	2%
Totaal	134K	100%	Totaal	134K	100%	Totaal	134K	100%

Kandidaten nog te vervullen

Beroepsgroepen	#	%	Klant	#	%	Regio	#	%
1. Transport / Logistiek / C...	1,7K	39%	1. ...	1,6K	26%	1. Amsterdam	1,1K	26%
2. Callcenter / Customer S...	722	16%	2. ...	712	10%	2. Rotterdam	457	10%
3. Winkelwerk / Retail / De...	293	7%	3. ...	283	3%	3. Utrecht	426	10%
4. Productie	282	6%	4. ...	272	3%	4. Den Bosch	151	3%

GOOD

THREE YEARS LATER
TWO DASHBOARDS LATER

**AND THEN
WHAT?**

TOO MUCH DATA

NO ACTION

YOUNG
CAPITAL

RECRUIT



TOO MANY
CANDIDATE
REJECTIONS

SCREEN

TEST &
PROPOSE

HIRE

HUNT

ONBOARD

OUR
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PROCESS

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SELL

WORK
@CUSTOMER

REASSIGN

PAY & BILL

REGISTER

WORK



OFFBOARD



EXPENSIVE &
VERY REACTIVE

ATTRACT



WHAT
CHANNEL MIX?



TIME
INEFFICIENCIES



PREDICTIVE
AUTOMATED
MATCHMAKIN
G MODEL

YOUNG
CAPITAL

PAMM

IN SHORT

PAMM PREDICTS THE BEST CHANNEL MIX TO MATCH CANDIDATES WITH CLIENTS, CUTTING COSTS AND TIME WASTED.

IT DELIVERS **THE RIGHT CANDIDATES AT THE RIGHT MOMENT**, FOR THE BEST PRICE, BOOSTING EFFICIENCY AND HIRING SUCCESS WHILE ADDING VALUE FOR BOTH SIDES.



CHALLENGE

S

1 **STAKEHOLDER
MANAGEMENT**

3 **MANAGING
COSTS OF DEV.**

2 **LACK OF
KNOWLEDGE**

4 **NO STRUCTURED
WAY OF WORKING**

MAR 2023

MAR 2024

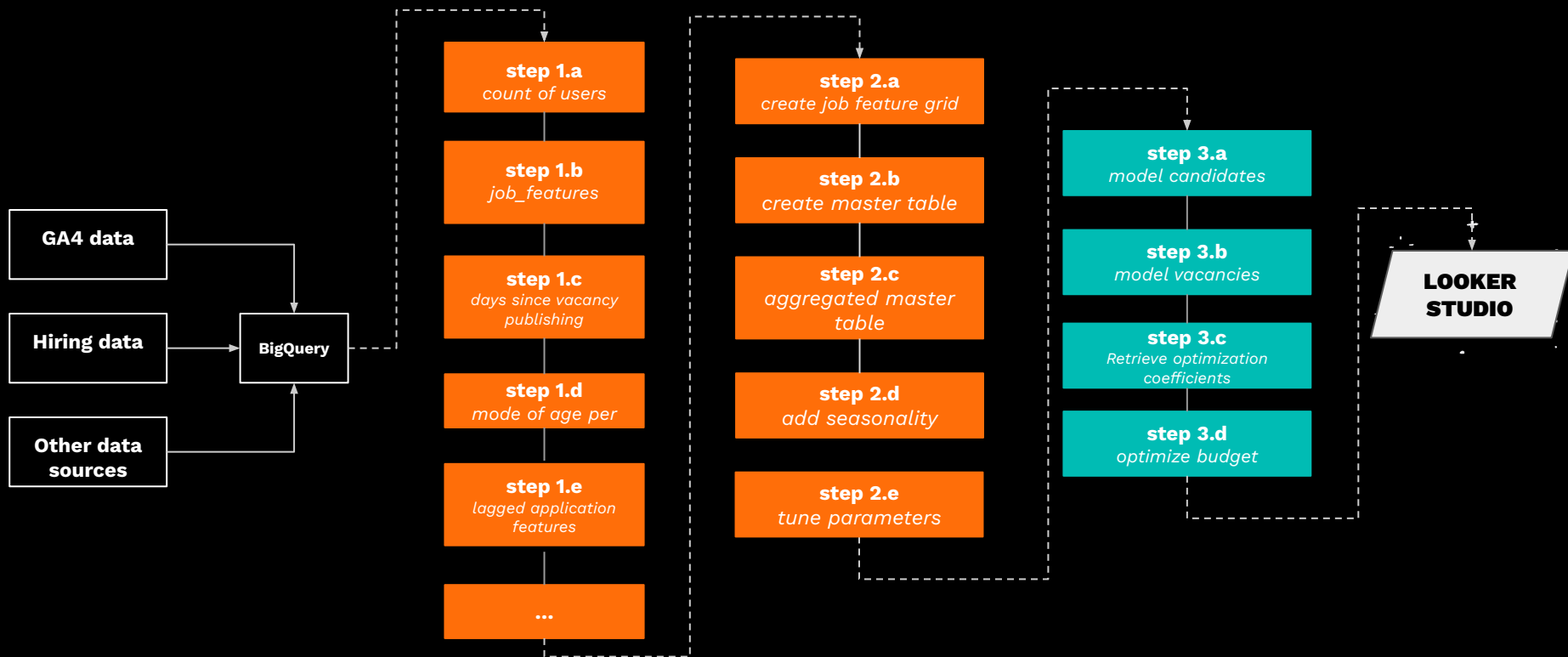


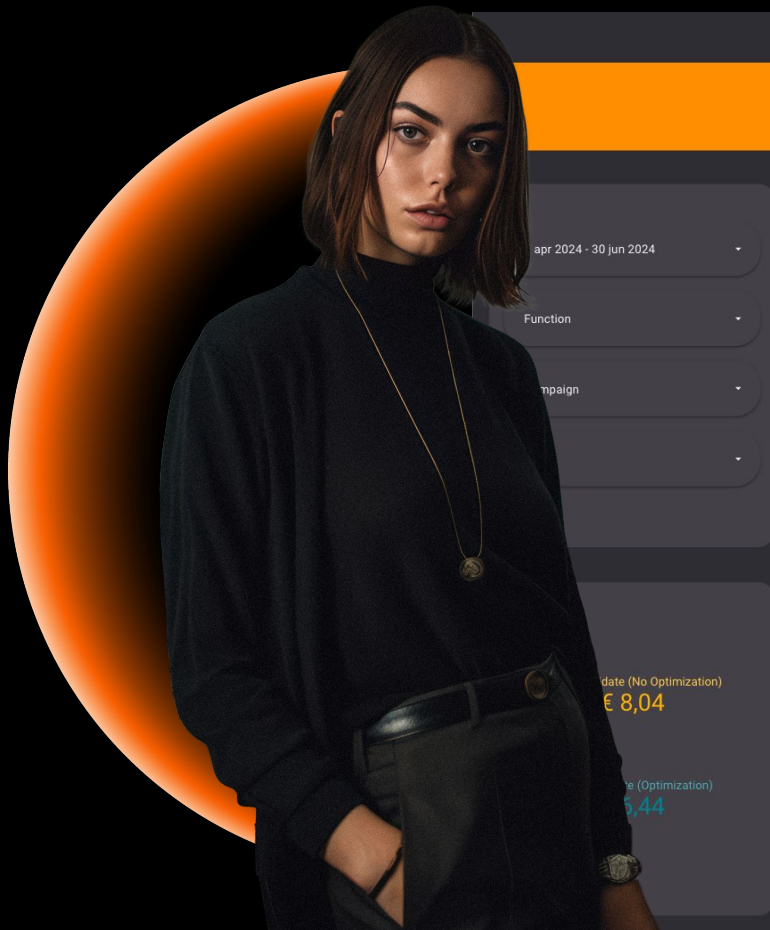
DATA COLLECTION

DATA PROCESSING

DATA AGGREGATION

MACHINE LEARNING





1 apr 2024 - 30 jun 2024

Function

Campaign

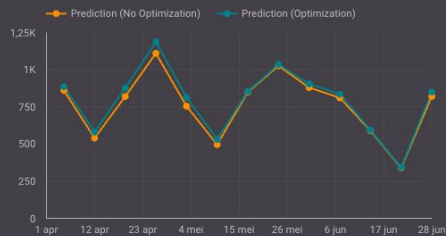
Prediction (No Optimization)

€ 8,04

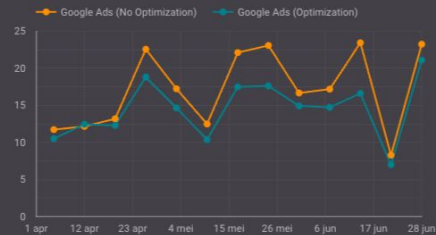
Prediction (Optimization)

€ 5,44

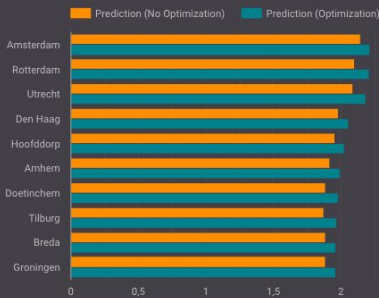
Predictions of acquired applicants with and without optimization during time:



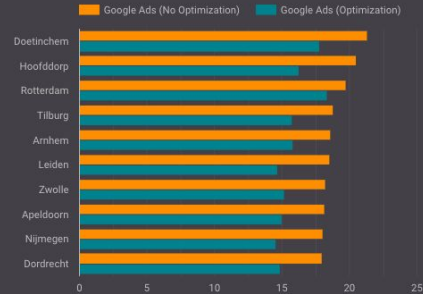
Average Google Ads with and without optimization during time:

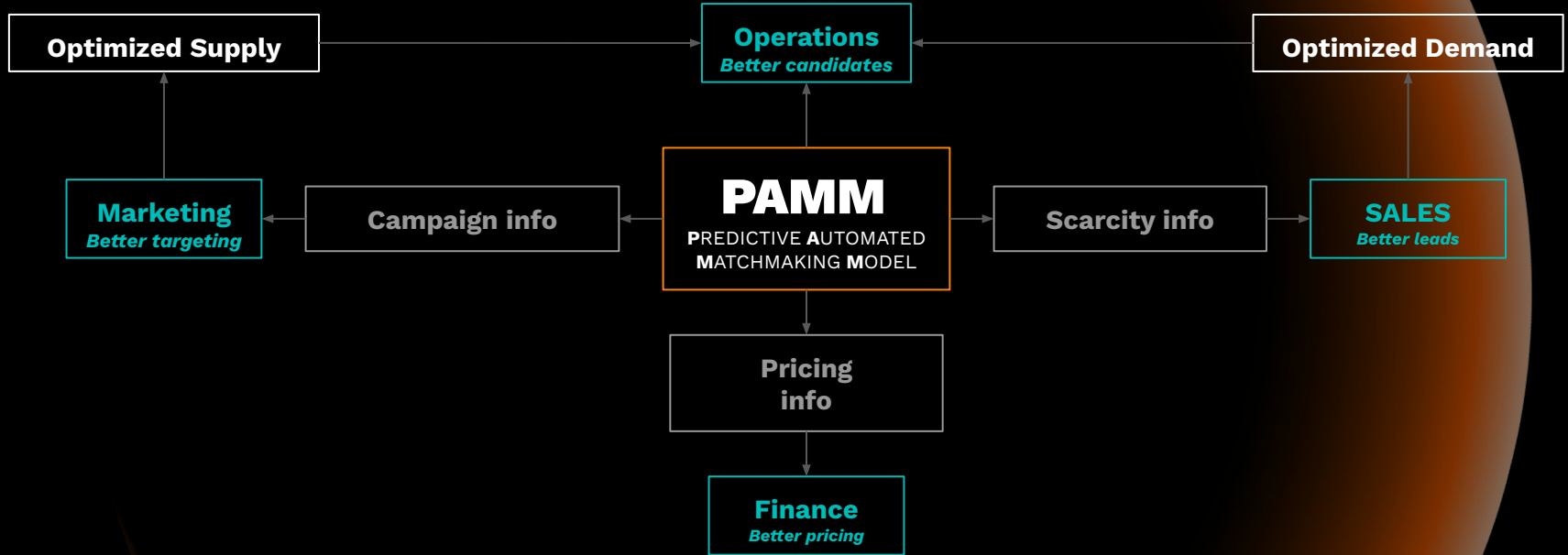


Average prediction acquired applications per function and campaign:



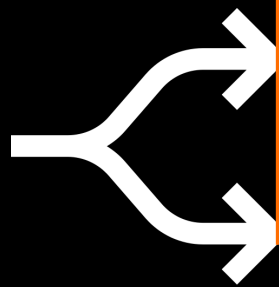
Average Google Ads budget per function and campaign over 2 weeks lag:





RESULT

CPA = 5%



T

COST = 2,5%



APPLICATIONS = 8%



RESULT

RESULT

	NO I	PAMM
1. Ad Budget:	€1.000.000	€1.025.000 (2.5% cost increase)
2. Cost per Application (CPA):	€10,00	€9,95 (5% cheaper)
3. Applications:	100.000	108.000 (8% increase)
4. Hires (5%):	5.000	5.400
5. Revenue (25K per hire):	€125.000.000	€135.000.000

**POTENTIAL INCREASE IN REVENUE OF
€10.000.000,-
WITH 25K MORE AD SPEND**

RESULT



**YOUNG
CAPITAL™**

**WHAT IS THE CORE OF
YOUR CHALLENGE?
MAKE **THAT**
ACTIONABLE**

YOUNG
CAPITAL

LET'S
MAKE IT
WORK

YOUNG
CAPITAL

