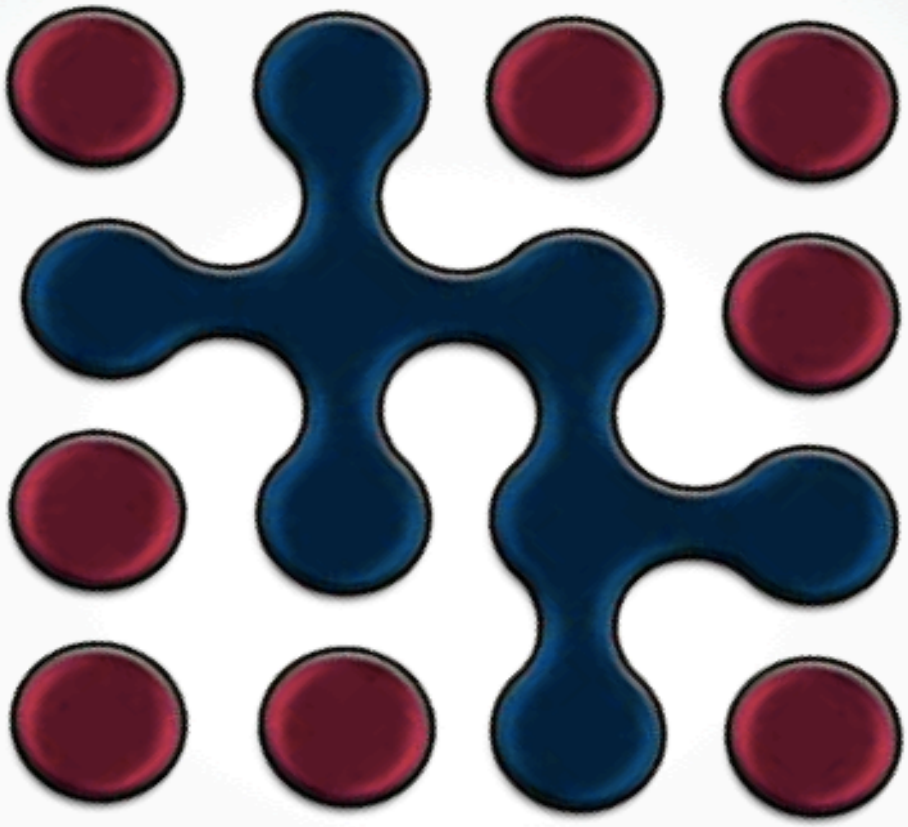
TECHNOLOGY IN CORRECTIONS



CHALLENGES FOR THE FUTURE

Barcelona, 27-29 May, 2015

TRACK GROUP

Tom Gilgan

Chief Technology Officer

TRACK GROUP

ONE GLOBAL BRAND.

One Global Voice.

We passionately believe we can make a difference in the world by innovating the way information is captured, organized and used.

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M2M DEFINED

Internet of Things (IoT)

A device i.e. a sensor, a meter, or other apparatus captures an “event”, e.g. location, level, motion, the presence of heat, vital signs, etc.

DEVICE

NETWORK

A network (wireless, wired, hybrid) transports the data associated with the captured event to an application

The application makes sense of the data, transforming it into actionable information, e.g., there is a breach, vending machine needs to be restocked, car is located, etc.

APPLICATION

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CURRENT JUDICIAL
TECHNOLOGY
R.A.D.A.R.™
DISCREET,
MOBILE &
POCKET SIZED
Rehabilitate
Alcohol
Offenders
Shadow
LOW RISK
OFFENDERS
Beacon
TrackerPAL
ReliAlert™ XC
HIGH RISK
OFFENDERS
microphone • speaker • siren
+SecureCuff™
TrackerPAL Mobile
REAL TIME
ALARM + LOCATION
DATA

WHAT DOES IT MEAN TO AGGREGATE DATA?

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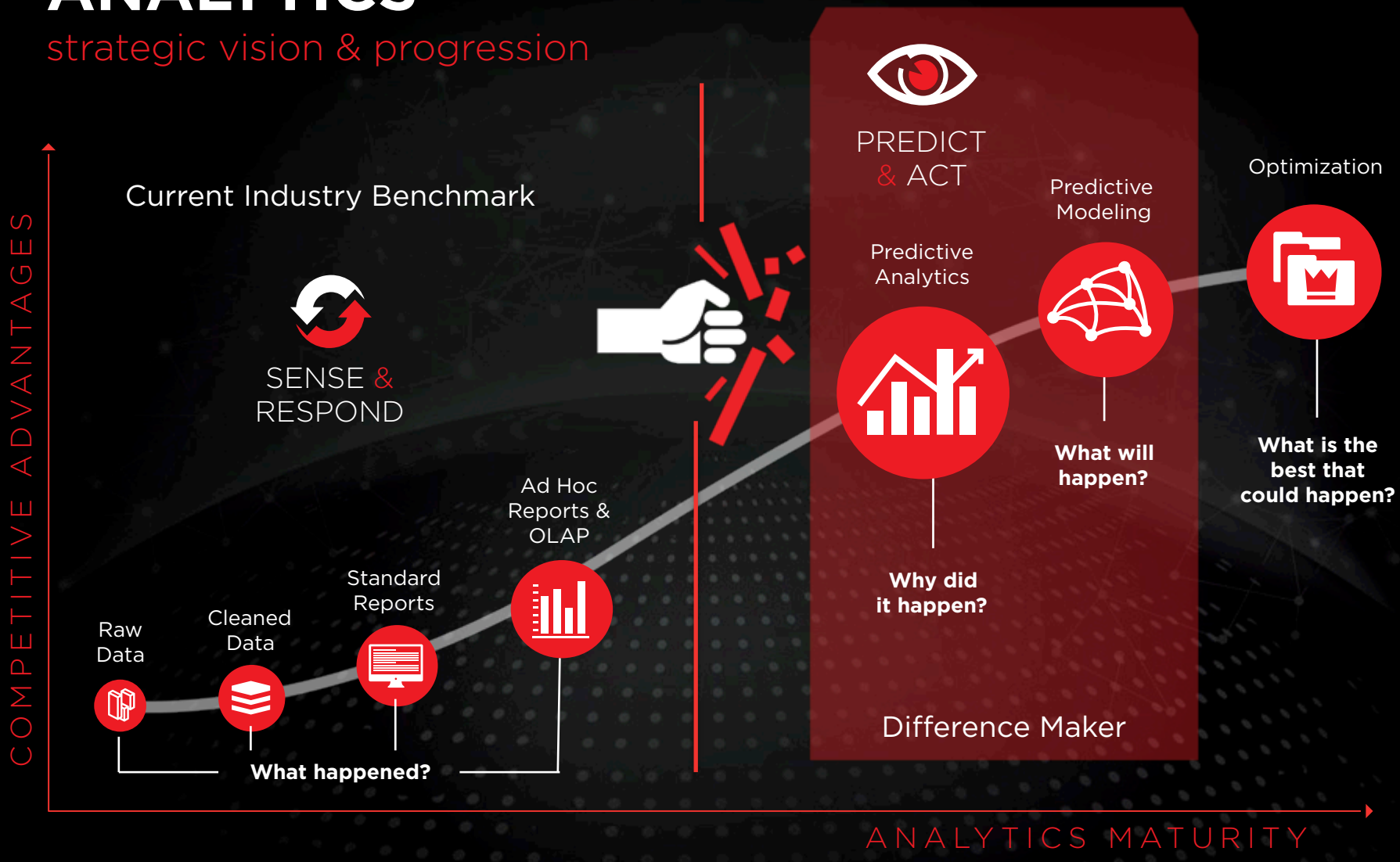
ANALYTICS

strategic vision & progression



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PRIVACY

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KEY TAKEAWAYS

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CURRENT CAPABILITIES

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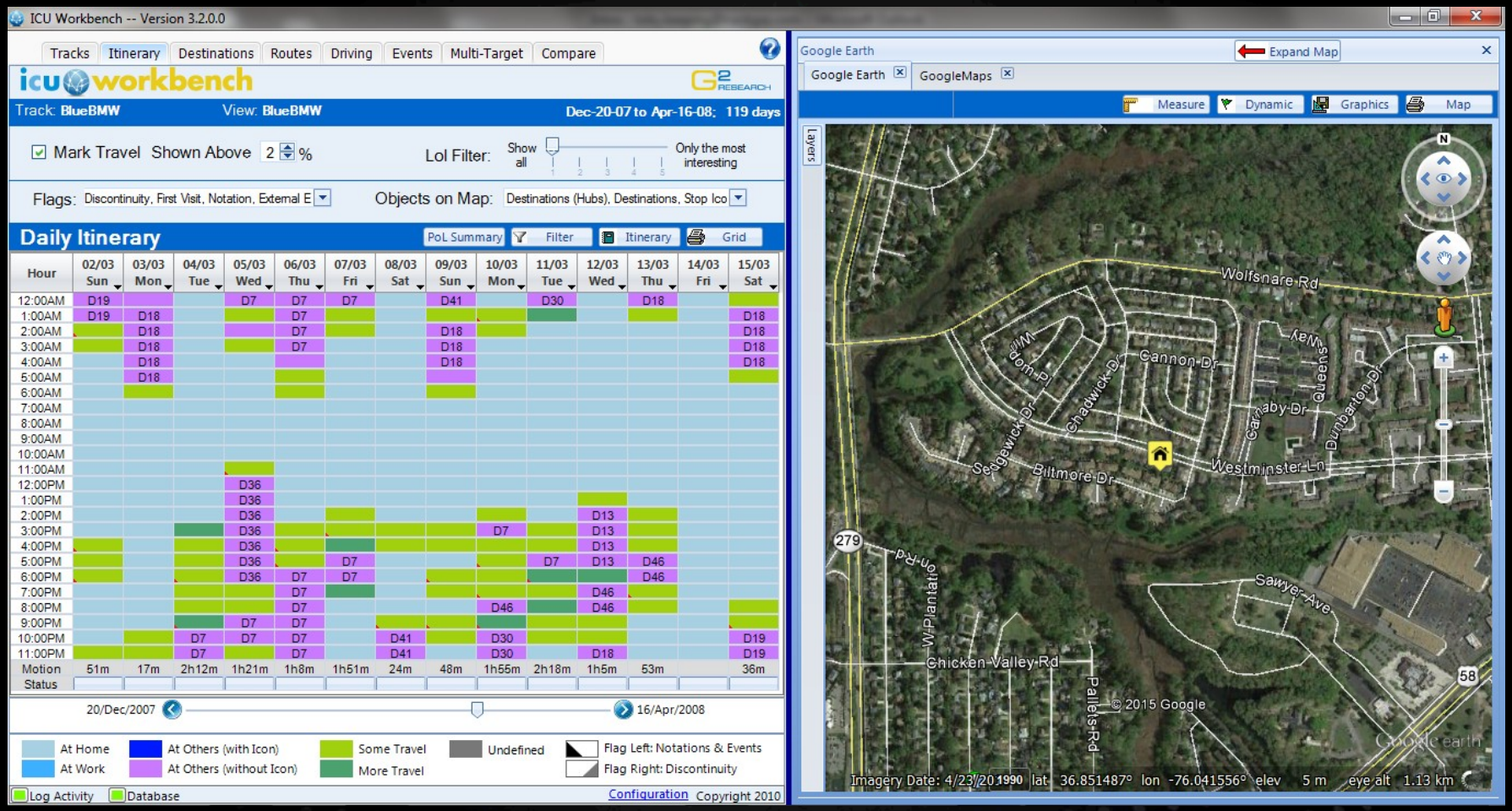
PATTERN OF LIFE



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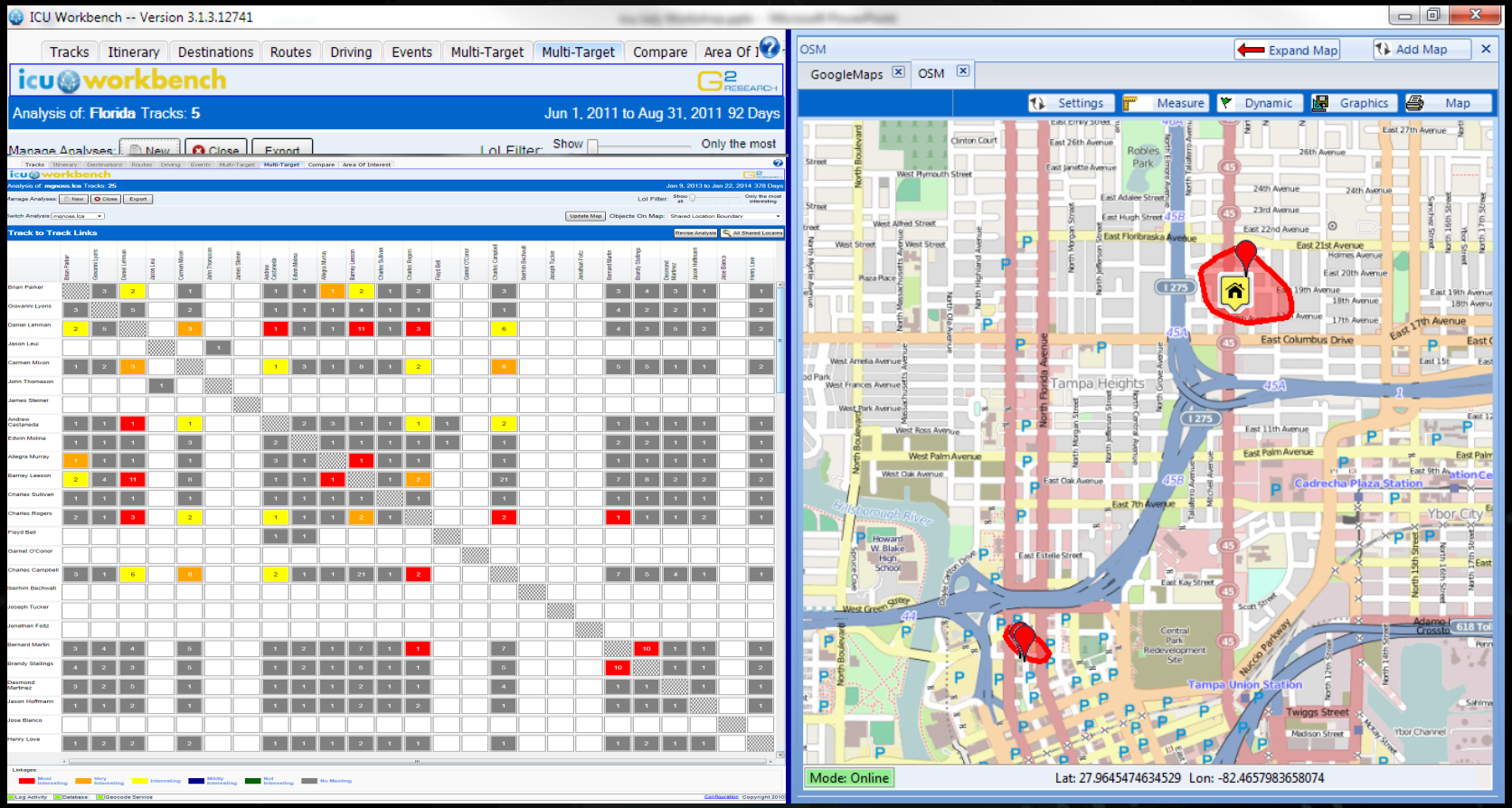
DO NOT ASSOCIATE



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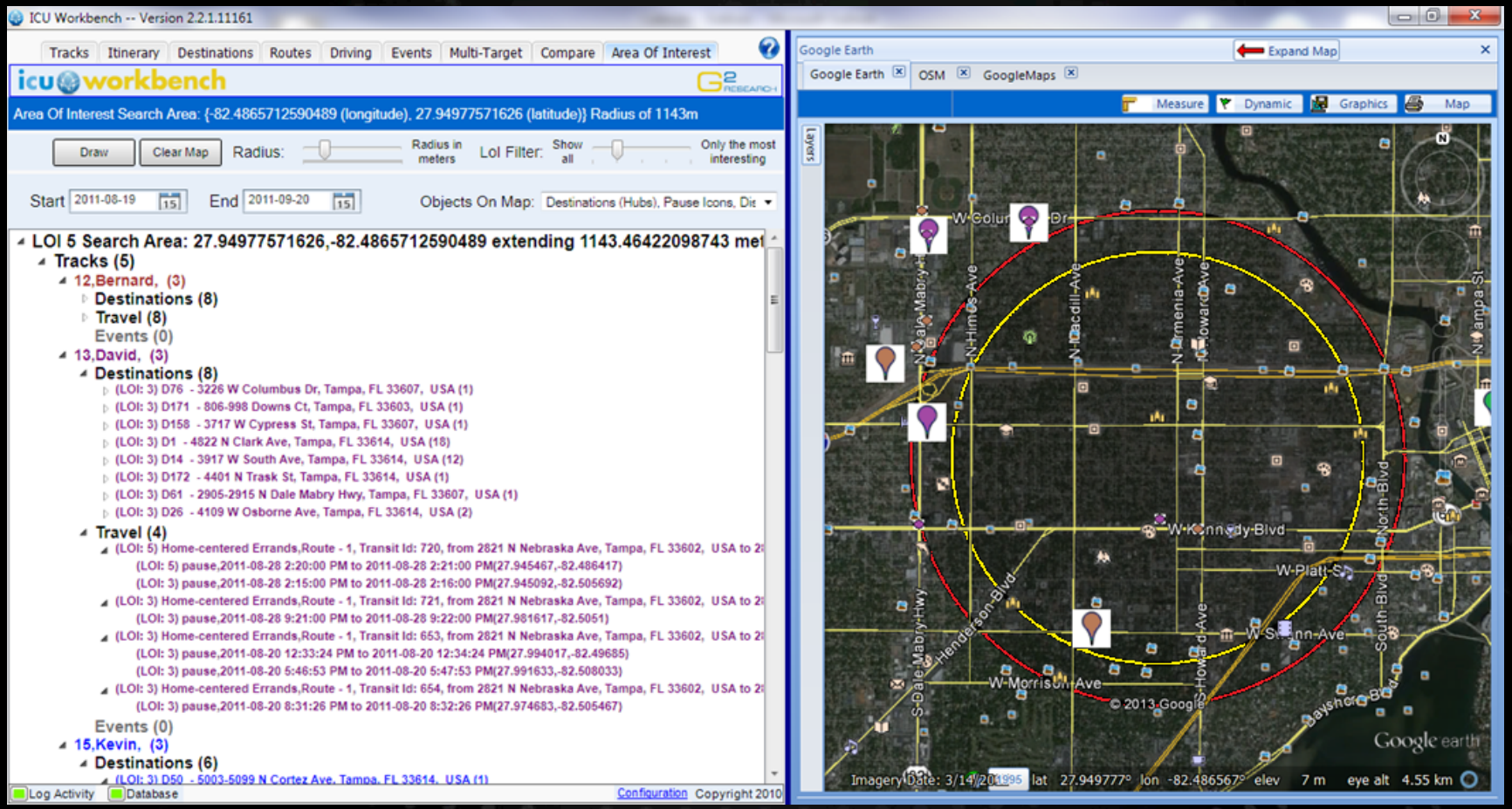
CRIME SCENE CORRELATION



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DATA FUSION

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CASE LOAD MANAGEMENT

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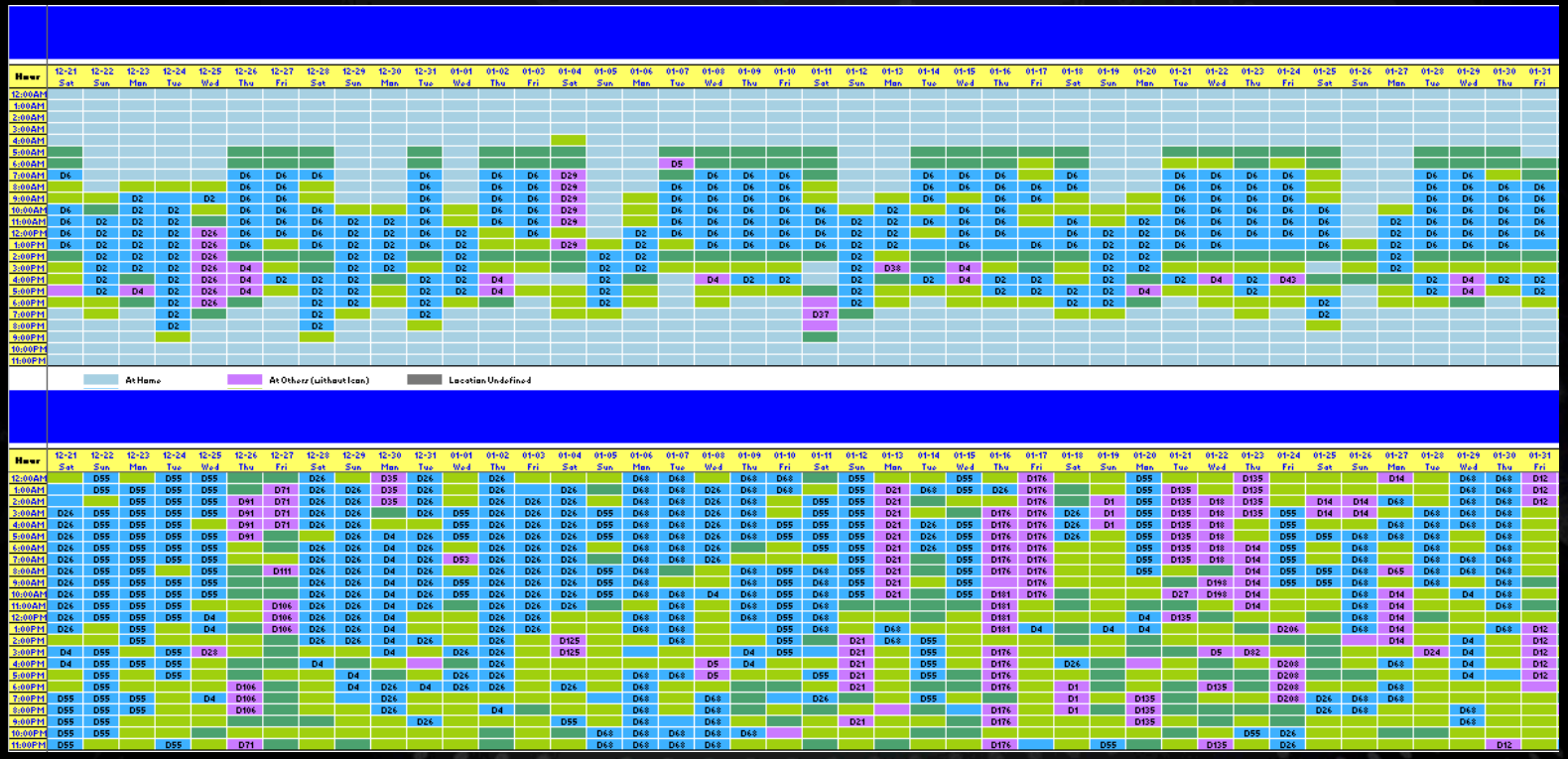
STRUCTURED vs. UNSTRUCTURED

Lifestyle



CASE LOAD ANALYSIS

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OFFENDER PROFILE

Example

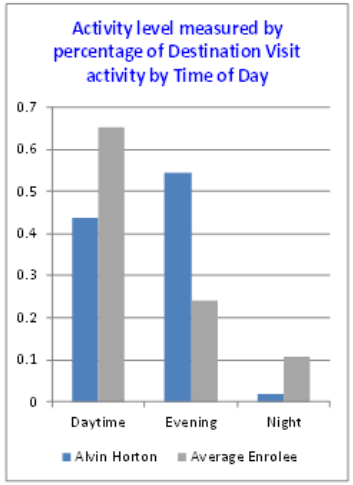
Enrollee Administrative Metrics Profile

Case Officer: [redacted]
Enrollee:
Provider:

Track (27) Dates: From 2014-04-09 To 2014-04-30 | Weeks 3 | Days 22 | Days Worked 21 | Time not Tracked (hr) 37.17
Device Model: [redacted]

Weight	Technical Metrics, Score = 57% - scaled	Enrollee	Average Enrollee
25%	Average reporting interval for Fixes	81	83
10%	Number of reporting intervals of 1 hour or greater	8	34
20%	Number of Fixes assessed as unusable	9	31
	Number of fixes logged as inaccurate	1,368	986
15%	Number of possible "false travel" instances identified	14	14
20%	Instances per week of track Discontinuities	2.55	4
10%	Percentage of IZ alerts that appear unnecessary	65%	76%
	Percentage of EZ alerts that appear unwarranted		80%

Weight	Behavioural Metrics, Score = 71% - scaled		Enrolee Score
	Home	Identified the enrolee's home thru pattern recognition	
n/a	Work	Identified 1 worksite(s) via pattern recognition	
	Other Dest	Identified another location with regular visit patterns	
20%	General	See chart at right for comparison to average enrolee activity	24%
20%	Night	See chart at right for comparison to enrolee average	93%
40%	PoL	Overall assessment of enrolee's Pattern of Life	70%
20%	Alarms	Overall number of unfiltered behavioral alarms = 6	93%



		Assessed Location at time of Alert							
TE Code	TE Icon Name	Home	Work	Possibly Scheduled Destinations	Other Destinations	Work Commute	Other Travel	Unknown	# that could be filtered
IZ	Inclusion Zone	11	0	0	3	0	3	0	11

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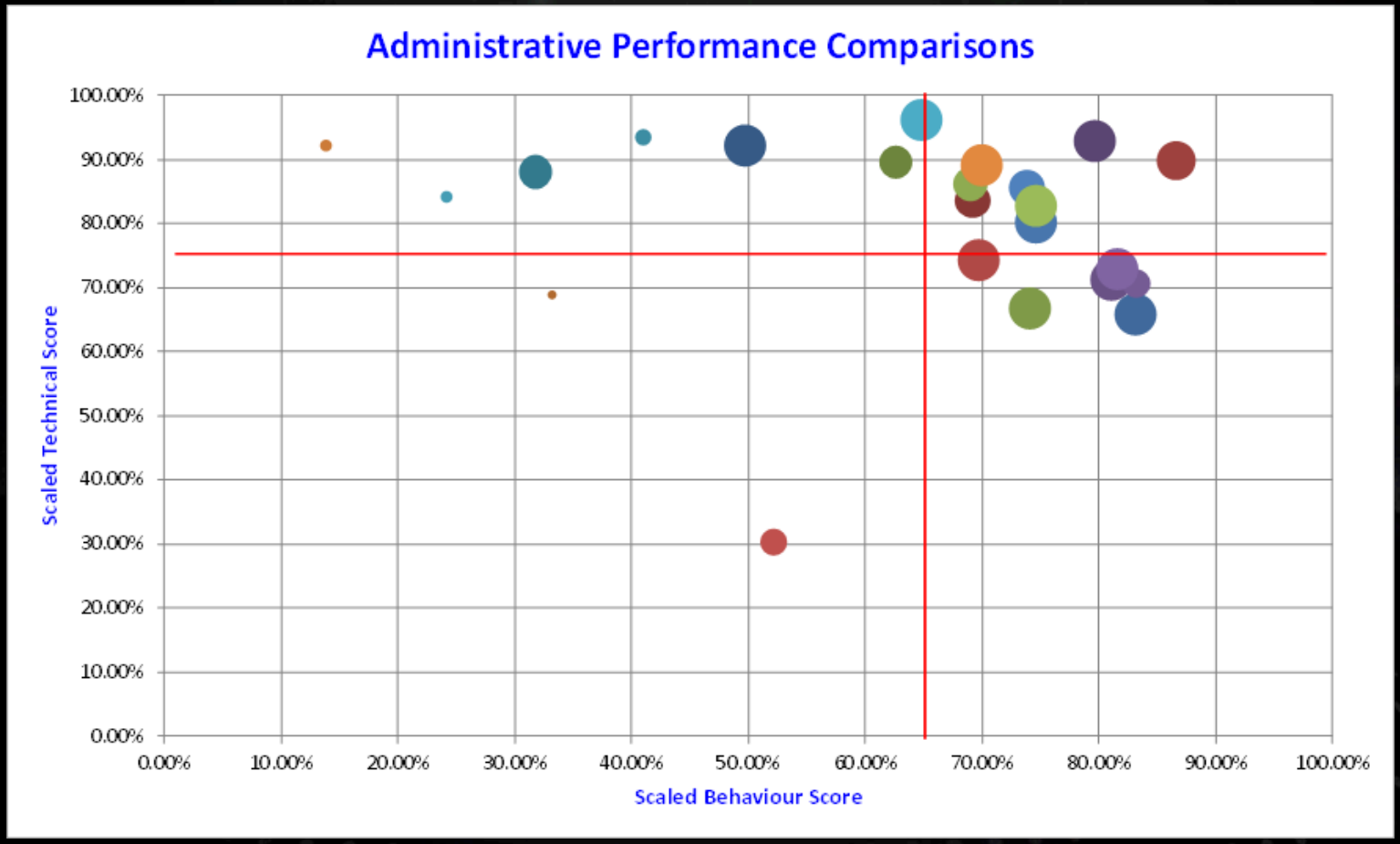
CASE LOAD ANALYSIS

Example



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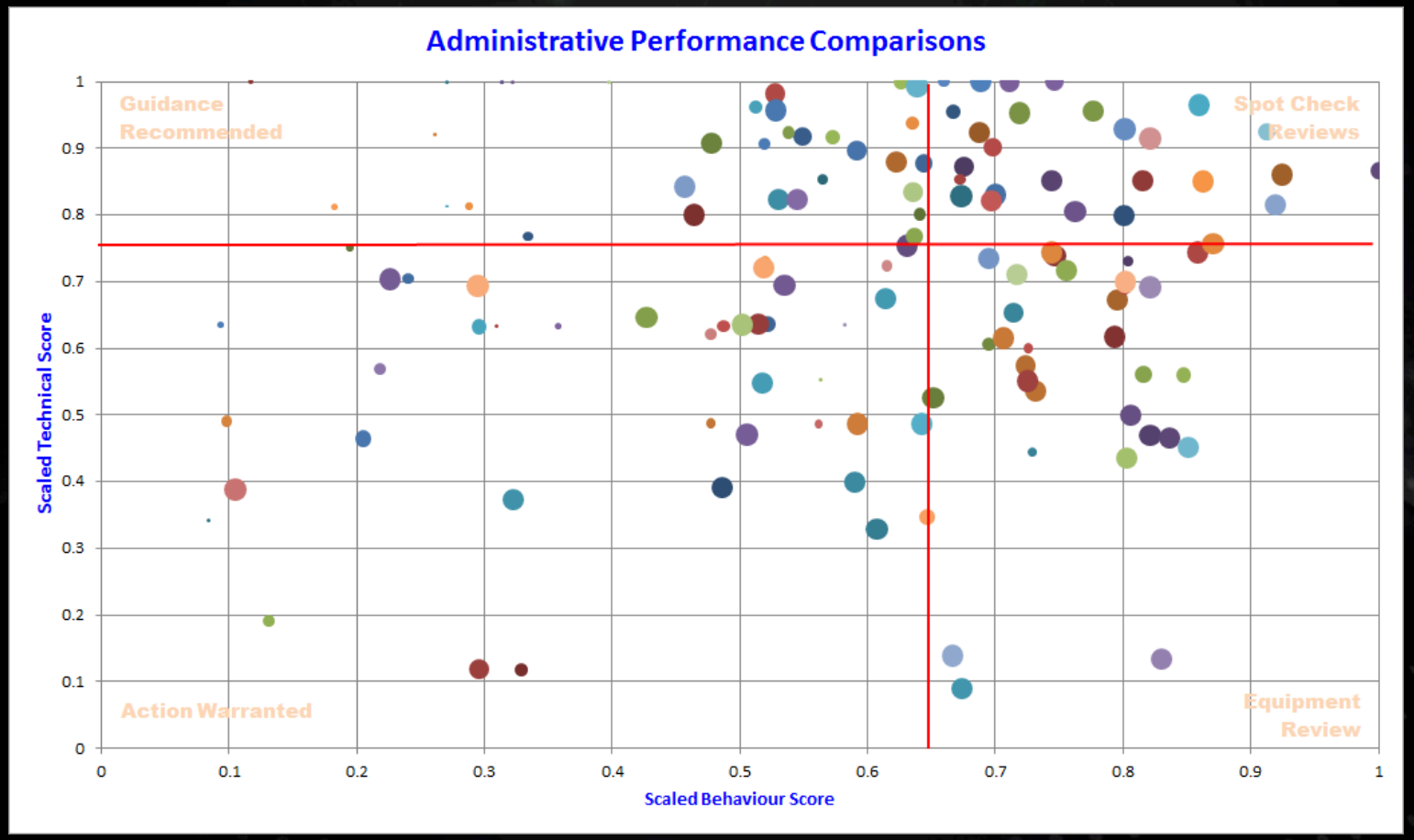
DEPARTMENT ANALYSIS

Example



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TREATMENT EFFICACY

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MACHINE LEARNING

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