

Building a reporting system with **BREW**

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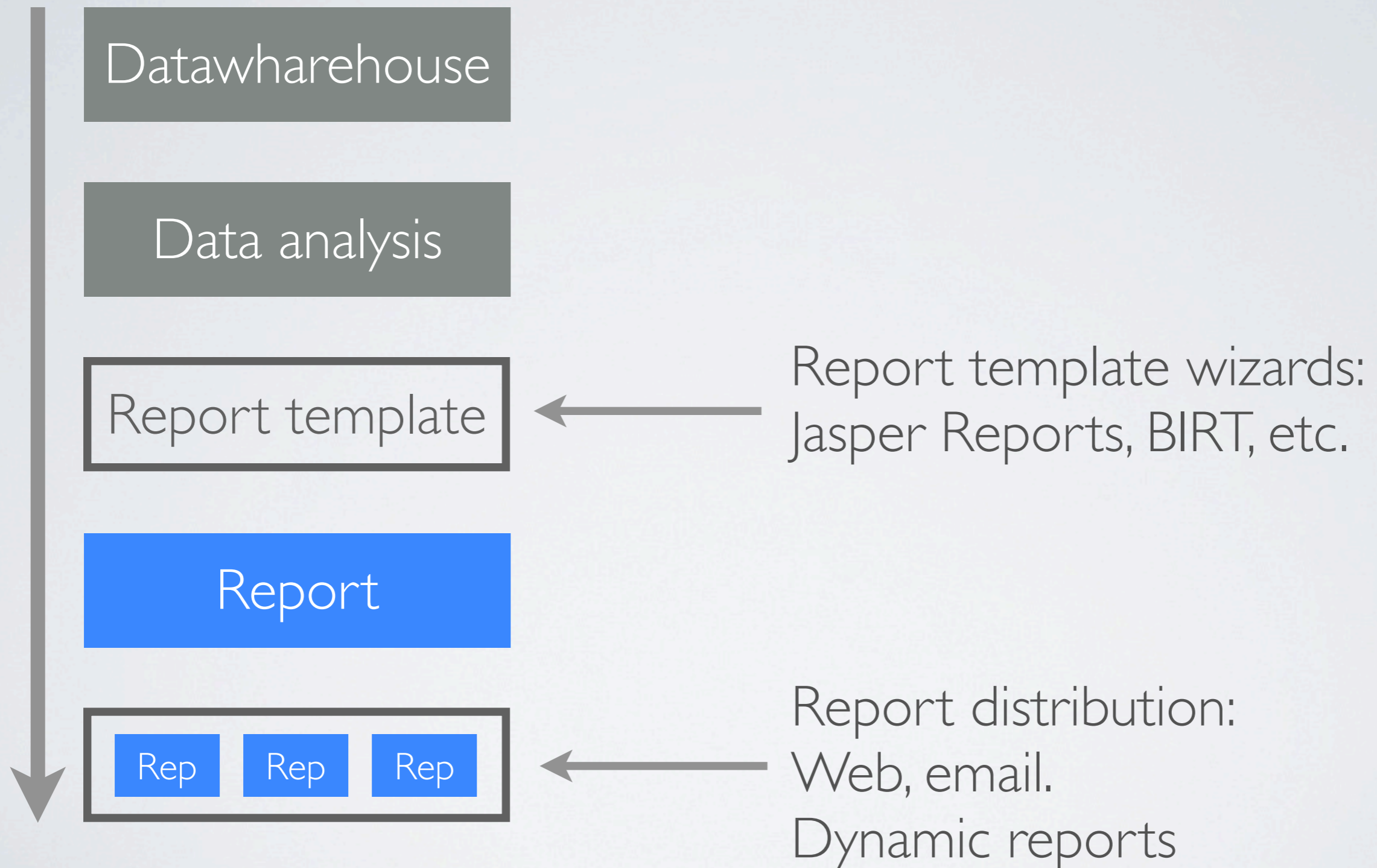
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Enterprise report generation



Enterprise reporting design **shortcomings**

Poor in-report logic.

Not a best practice but most of the times inevitable!

Ugly defaults.

Please, check out Tufte books.

Simple plots.

Sometimes you need statistical or more complex plots.

Regular users should be able to create their own reports. **Really?**

Brew The dumbest example

example.brew

```
<% x <- 2 %>  
Good morning.  
Today the kilo oranges  
is priced at <%= x %> euros.
```

```
R> brew("example.brew", "example.txt")
```

example.txt

```
Good morning.  
Today the kilo oranges  
is priced at 2 euros.
```

Brew Precomputing things before

example.R

```
x <- 2  
save(x, file= "data.Rdata")
```

example.brew

```
<% load("data.Rdata") %>  
Good morning.  
Today the kilo oranges  
is priced at <%= x %> euros.
```

```
R> brew("example.brew", "example.txt")
```

example.txt

```
Good morning.  
Today the kilo oranges  
is priced at 2 euros.
```



Brew Smart templates

example.R

```
x <- 2  
save(x, file= "data.Rdata")
```

example.brew

```
<% load("data.Rdata") %>  
Good morning.  
Today the kilo oranges  
is priced at <%= x %> euros.  
<% if x > 1 %>  
That's f***ing expensive!  
<% end %>
```

```
R> brew("example.brew", "example.txt")
```

example.txt

```
Good morning.  
Today the kilo oranges  
is priced at 2 euros.  
That's f***ing expensive!
```



Brew + latex

example.brew

```
\begin{document}
Today the kilo oranges  $\rightarrow$   $\langle\% = x \%$  euros.
\end{document}
```

```
R> brew("example.brew", "example.tex")
```

example.tex

```
\begin{document}
Today the kilo oranges  $\rightarrow$  2 euros.
\end{document}
```

```
R> texi2dvi("example.tex", pdf=TRUE)
```

example.pdf

Today the kilo oranges \rightarrow 2 euros.

The alternative stack



Report example



XARXA Sanitària i Social
de SANTA TECLA

Indicadors qualitius de farmàcia

Dades acumulades gener - setembre de 2011

Data: 14 de novembre de 2011

Report example

Indicadors Qualitatius de farmàcia per EAP i metge

Ref: Far-AP-Qualitatius-EAP

Data: 14 de novembre de 2011



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Report example

Indicadors Qualitatius de farmàcia per EAP i metge

Ref: Far-AP-Qualitatius-EAP

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2 EAP El Vendrell

2.1 Metges de família

	Receptes	% EFG		% Novetats		% Omeprazol		% Estatines		% IECA		% AD rec.		% Biofosfonats	
		Real	Meta	Real	Meta	Real	Meta	Real	Meta	Real	Meta	Real	Meta	Real	Meta
	45.287	27,0	≥ 36,0	1,51	≤ 1,5	84,4	≥ 88,0	33,8	≥ 63,0	30,5	≥ 50,0	42,7	≥ 55,0	35,8	≥ 45,0
	27.441	40,4	≥ 36,0	1,78	≤ 1,5	86,9	≥ 88,0	57,8	≥ 63,0	41,2	≥ 50,0	49,4	≥ 55,0	59,9	≥ 45,0
	39.926	43,3	≥ 36,0	1,12	≤ 1,5	91,3	≥ 88,0	71,1	≥ 63,0	50,5	≥ 50,0	56,5	≥ 55,0	81,0	≥ 45,0
	17.268	35,3	≥ 36,0	2,32	≤ 1,5	89,2	≥ 88,0	53,4	≥ 63,0	41,5	≥ 50,0	62,2	≥ 55,0	43,3	≥ 45,0
	7.165	45,5	≥ 36,0	0,693	≤ 1,5	83,8	≥ 88,0	67,2	≥ 63,0	37,5	≥ 50,0	42,1	≥ 55,0	57,9	≥ 45,0
	35.916	39,9	≥ 36,0	2,74	≤ 1,5	87,5	≥ 88,0	69,5	≥ 63,0	32,9	≥ 50,0	65,6	≥ 55,0	51,6	≥ 45,0
	37.341	38,7	≥ 36,0	2,04	≤ 1,5	86,3	≥ 88,0	45,5	≥ 63,0	35,5	≥ 50,0	52,9	≥ 55,0	47,4	≥ 45,0
	28.008	42,1	≥ 36,0	2,69	≤ 1,5	85,2	≥ 88,0	51,7	≥ 63,0	19,0	≥ 50,0	47,6	≥ 55,0	47,0	≥ 45,0
	25.083	39,3	≥ 36,0	2,26	≤ 1,5	84,4	≥ 88,0	52,7	≥ 63,0	52,3	≥ 50,0	44,8	≥ 55,0	53,0	≥ 45,0
	28.994	43,3	≥ 36,0	1,98	≤ 1,5	87,5	≥ 88,0	62,3	≥ 63,0	38,2	≥ 50,0	39,7	≥ 55,0	35,3	≥ 45,0
	24.878	38,7	≥ 36,0	0,668	≤ 1,5	86,1	≥ 88,0	58,5	≥ 63,0	44,8	≥ 50,0	48,5	≥ 55,0	64,6	≥ 45,0
	16.814	43,0	≥ 36,0	1,27	≤ 1,5	87,3	≥ 88,0	68,0	≥ 63,0	55,6	≥ 50,0	58,5	≥ 55,0	62,0	≥ 45,0
	27.920	47,5	≥ 36,0	2,32	≤ 1,5	86,4	≥ 88,0	62,9	≥ 63,0	58,4	≥ 50,0	57,8	≥ 55,0	66,6	≥ 45,0
	22.348	40,7	≥ 36,0	0,911	≤ 1,5	91,4	≥ 88,0	62,7	≥ 63,0	41,5	≥ 50,0	55,3	≥ 55,0	96,1	≥ 45,0
	24.446	42,7	≥ 36,0	1,34	≤ 1,5	86,1	≥ 88,0	73,5	≥ 63,0	52,9	≥ 50,0	66,6	≥ 55,0	58,5	≥ 45,0
	6.762	35,0	≥ 36,0	1,51	≤ 1,5	82,1	≥ 88,0	55,2	≥ 63,0	52,6	≥ 50,0	57,6	≥ 55,0	35,6	≥ 45,0
	28.495	32,4	≥ 36,0	1,86	≤ 1,5	83,8	≥ 88,0	59,6	≥ 63,0	34,0	≥ 50,0	45,4	≥ 55,0	53,0	≥ 45,0
	29.119	36,7	≥ 36,0	1,33	≤ 1,5	93,3	≥ 88,0	60,4	≥ 63,0	47,8	≥ 50,0	53,2	≥ 55,0	58,7	≥ 45,0
	23.919	41,1	≥ 36,0	1,05	≤ 1,5	93,0	≥ 88,0	76,8	≥ 63,0	40,8	≥ 50,0	67,3	≥ 55,0	93,2	≥ 45,0
	11.435	39,1	≥ 36,0	0,983	≤ 1,5	85,7	≥ 88,0	60,0	≥ 63,0	52,1	≥ 50,0	56,5	≥ 55,0	69,6	≥ 45,0
	27.534	44,7	≥ 36,0	1,31	≤ 1,5	88,1	≥ 88,0	83,6	≥ 63,0	56,8	≥ 50,0	62,8	≥ 55,0	74,3	≥ 45,0
	32.553	50,7	≥ 36,0	1,81	≤ 1,5	84,9	≥ 88,0	71,0	≥ 63,0	62,5	≥ 50,0	62,8	≥ 55,0	71,8	≥ 45,0
	8.600	36,4	≥ 36,0	0,954	≤ 1,5	87,2	≥ 88,0	48,9	≥ 63,0	40,4	≥ 50,0	58,1	≥ 55,0	32,3	≥ 45,0
Promig EAP		39,9		1,7		87,1		61,6		43,7		54,0		61,9	
Promig ABS		40,0		1,6		87,2		61,7		44,0		54,4		61,9	
Promig Xarxa AP		39,5		1,7		87,0		61,5		44,2		53,7		58,1	

Report example

Indicadors Qualitatius de farmàcia per EAP i metge

Ref: Far-AP-Qualitatius-EAP

Data: 14 de novembre de 2011



9 Gràfics amb la distribució comparativa dels indicadors dels metges de família entre EAPs

9.1 % EFG

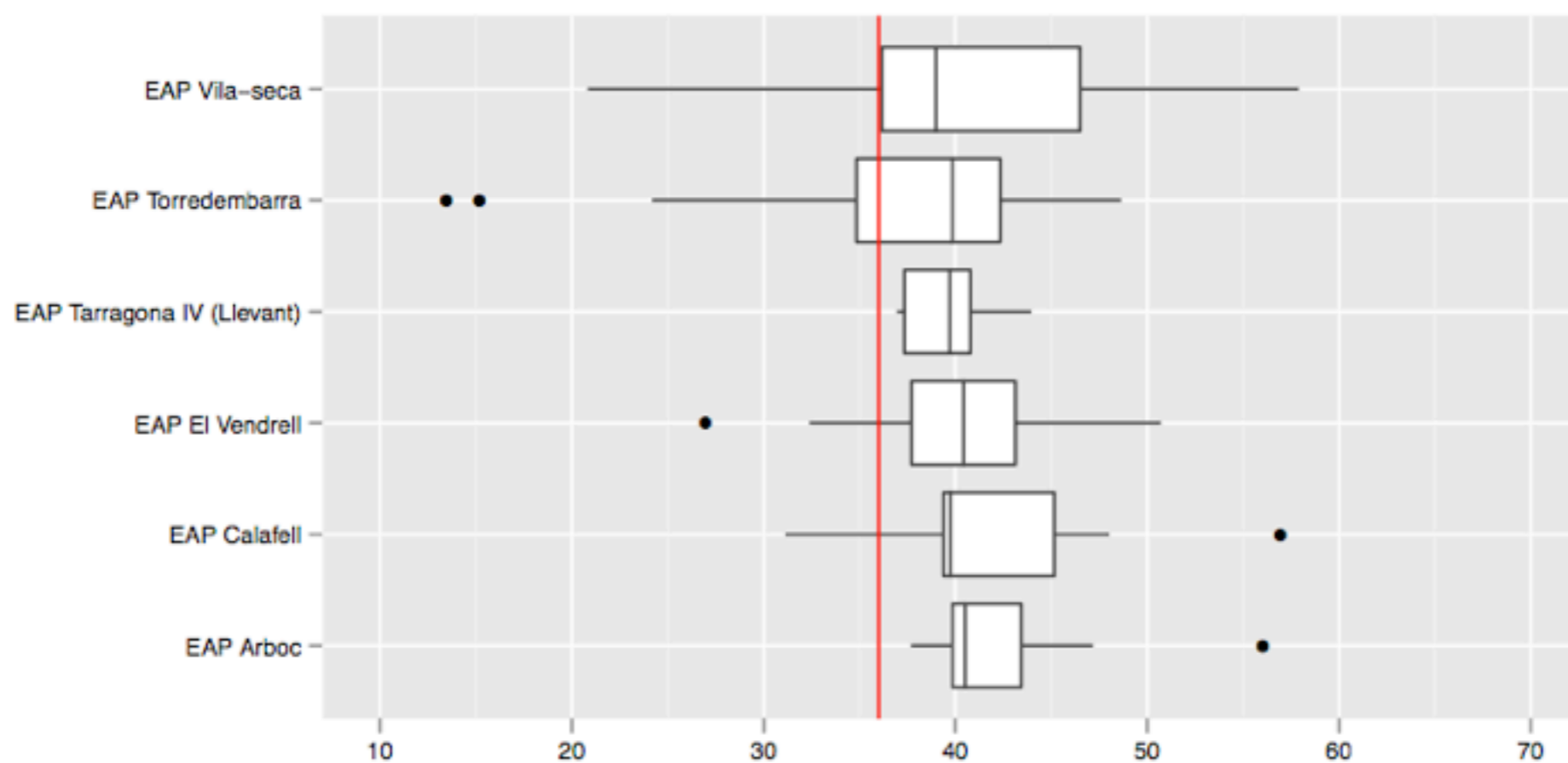


Fig. 1: En vermell es mostra el valor objectiu de l'indicador.

Brew vs Sweave

example.brew

```
\begin{document}

\begin{table}
<% for (i in 1:nrow(data)) { -%>
  <%= data$name[i] %> &
  <%= data$value[i] %> \\
\end{table}

Price is <%= x %>

\begin{figure}
  \includegraphics{...}
\end{figure}

\end{document}
```

example.Rnw

```
\begin{document}

<<Table1, echo=F,results=tex>>=
print(xtable(data))
@

Price is \Sexpr{x}

<<plot1, echo=F, fig=T>>==
print(plot1)
@

\end{document}
```

Thanks!

