# ${\bf Package\ `visualisation IMPACT'}$

December 10, 2019

Type Package

Title Functions for different type of output (visualisation)	
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add_outlier_boxplot add_percent_format add_stat_to_boxplot barchart_impact boxplot_impact errorbar_impact grouped_barchart_impact grouped_boxplot_impact reach_style_color_beige reach_style_color_darkgrey reach_style_color_darkgreys reach_style_color_lightgrey	2 3 3 4 7 7 7

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add\_outlier\_boxplot Create a barchart for average

# Description

Create a barchart for average

#### Usage

```
add_outlier_boxplot(theplot, x, y, type.boxplot, group = group)
```

# **Arguments**

theplot: ggplot

x: element of .data that contains the different values of the categorical data

# Value

a ggplot object

# Description

Add percent format to a ggplot

# Usage

```
add_percent_format(theplot)
```

# Arguments

theplot: ggplot to which add percent format

#### Value

a ggplot object

add\_stat\_to\_boxplot 3

add\_stat\_to\_boxplot Add statistics values on boxplot

#### **Description**

Add statistics values on boxplot

#### Usage

```
add_stat_to_boxplot(theplot, x, whisker_min, whisker_max, median)
```

#### **Arguments**

theplot: ggplot

x: element of .data that contains the different values of the categorical data

whisker\_min: element of .data containing the value of the lower whisher. Usually calculated

as 1.5\*IQR smallest value from the hinge

whisker\_max: element of .data containing the value of the upper whisher. Usually calculated

as 1.5\*IQR largest value from the hinge

median: element of .data containing the median values

#### Value

a ggplot object

barchart\_impact Create a barchart for average

#### Description

Create a barchart for average

#### Usage

```
barchart_impact(.data, x, y, infimum_error = NULL,
   supremum_error = NULL, sens.barchart = "vertical", percent = FALSE)
```

# **Arguments**

infimum\_error (optional): column name (without quotes) of .data containing value of the lower

limit for the error bars

supremum\_error (optional): column name (without quotes) of .data containing value of the upper

limit for the error bars

sens.barchart (optional): if sens.barchart = "vertical" (default) boxplots are build with vertical

cartesian coordinates. If sens.barchart="horizontal" flip cartesian coordinates so

that vertical becomes horizontal

percent (optional): logical parameter. Default value is FALSE. If TRUE, y values are

written as percentages

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.data: data that contains the result for the barchart (percents or averages)

x: column name (without quotes) of .data that contains the different values of the

categorical data.

y: column name (without quotes) .data containing for x element the y coordinates

#### Value

a ggplot object

boxplot\_impact Create be

Create boxplot standardize with IMPACT style

#### **Description**

Create boxplot standardize with IMPACT style

#### Usage

```
boxplot_impact(.data, x, name.y, median, first_quantile, third_quantile,
  whisker_min, whisker_max, outlier_min = NULL, outlier_max = NULL,
  sens.boxplot = "vertical")
```

#### **Arguments**

outlier\_min (optional): element of .data containing the most extreme value beyond the lower

whisper.

outlier\_max (optional): element of .data containing the most extreme value beyond the upper

whisper.

sens.boxplot (optional): if sens.boxplot = "vertical" (default) boxplots are build with vertical

cartesian coordinates. If sens.boxplot="horizontal" flip cartesian coordinates so

that vertical becomes horizontal

.data: data that contains the statistical result to build boxplots

x: element of .data that contains the different values of the categorical data

name.y: name of value calculated

median: element of .data containing the median values

 $first\_quantile:$ 

element of .data containing lower hinges correspond to the first quartile

third\_quantile:

element of .data containing upper hinges correspond to the third quartile

whisker\_min: element of .data containing the value of the lower whisher. Usually calculated

as 1.5\*IQR smallest value from the hinge

whisker\_max: element of .data containing the value of the upper whisher. Usually calculated

as 1.5\*IQR largest value from the hinge

#### **Details**

Create a plot with one or multiple boxplot standardize with IMPACT colors, fonts, ... for the same numerical variable

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#### Value

a ggplot object

errorbar\_impact

Error bar standardize

#### **Description**

Error bar standardize

#### Usage

```
errorbar_impact(plot_without_errorbar, measure, lower_limit, upper_limit,
  text_angle)
```

#### Value

a ggplot object

```
grouped_barchart_impact
```

Create a grouped barchart

#### **Description**

Create a grouped barchart

#### Usage

```
grouped_barchart_impact(.data, x, subset.x, y, infimum_error = NULL,
    supremum_error = NULL, sens.barchart = "vertical", percent = FALSE)
```

#### **Arguments**

infimum\_error (optional): column name (without quotes) of .data containing value of the lower

limit for the error bars

supremum\_error (optional): column name (without quotes) of .data containing value of the upper

limit for the error bars

sens.barchart (optional): if sens.barchart = "vertical" (default) boxplots are build with vertical

cartesian coordinates. If sens.barchart="horizontal" flip cartesian coordinates so

that vertical becomes horizontal

percent (optional): logical parameter. Default value is FALSE. If TRUE, y values are

written as percentages

.data: data that contains the result for the barchart (percents or averages)

x: column name (without quotes) of .data that contains the different values of the

categorical data

y: column name (without quotes) .data containing for x element the y coordinates

result\_percent:

data.frame of two column where the first is the values of the independent var and the second column is the average associated to the indepedent variable value

```
grouped_boxplot_impact
```

Create a plot with grouped boxplot with standadize IMPACT style

#### **Description**

Create a plot with grouped boxplot with standadize IMPACT style

# Usage

```
grouped_boxplot_impact(.data, x, subset.x, name.y, median, whisker_min,
  whisker_max, first_quantile, third_quantile, outlier_min = NULL,
  outlier_max = NULL, sens.boxplot = "vertical")
```

#### **Arguments**

outlier\_min (optional): element of .data containing the most extreme value beyond the lower

whisper.

outlier\_max (optional): element of .data containing the most extreme value beyond the upper

whisper.

sens.boxplot (optional): if sens.boxplot = "vertical" (default) boxplots are build with vertical

cartesian coordinates. If sens.boxplot="horizontal" flip cartesian coordinates so

that vertical becomes horizontal

.data: data that contains the statistical result to build boxplots

x: element of .data that contains the different values of the categorical data

subset.x: element containing all the subset categories of x.

name.y: name of value calculated

median: element of .data containing the median values

first\_quantile:

element of .data containing lower hinges correspond to the first quartile

third\_quantile:

element of .data containing upper hinges correspond to the third quartile

whisker\_min: element of .data containing the value of the lower whisher. Usually calculated

as 1.5\*IQR smallest value from the hinge

whisker\_max: element of .data containing the value of the upper whisher. Usually calculated

as 1.5\*IQR largest value from the hinge

#### **Details**

Create a plot with one or multiple boxplot standardize with IMPACT colors, fonts, ... for the same numerical variable

#### Value

a ggplot object

```
reach_style_color_beige
```

```
reach_style_color_beige
```

reach brand beiges

#### **Description**

reach brand beiges

# Usage

```
reach_style_color_beige(lightness = 1)
```

```
reach_style_color_beiges
```

Reach brand beige triples

# Description

Reach brand beige triples

# Usage

```
reach_style_color_beiges()
```

```
reach_style_color_darkgrey
```

Reach brand dark greys

# Description

Reach brand dark greys

# Usage

```
reach_style_color_darkgrey(lightness = 1)
```

```
reach_style_color_darkgreys
```

Reach brand dark grey triples

# Description

Reach brand dark grey triples

#### Usage

```
reach_style_color_darkgreys()
```

```
reach_style_color_lightgrey

reach brand light greys
```

# Description

reach brand light greys

# Usage

```
reach_style_color_lightgrey(lightness = 1)
```

```
{\tt reach\_style\_color\_lightgreys}
```

Reach brand light greys triples

# Description

Reach brand light greys triples

# Usage

```
reach_style_color_lightgreys()
```

```
reach_style_color_red Reach brand reds
```

# Description

Reach brand reds

#### Usage

```
reach_style_color_red(lightness = 1)
```

```
reach_style_color_reds
```

Reach brand reds triples

# Description

Reach brand reds triples

# Usage

```
reach_style_color_reds()
```

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sens\_barchart

Create a barchart for average

# Description

Create a barchart for average

# Usage

```
orientation_barchart(.data, independent.var, max_nbr_var, size_max_label)
```

#### **Arguments**

size\_max\_label integer for the maximum number of character of a label

.data: dataframe that contains the result for the barchart

independent.var.value:

column of the dataframe .data thta contains the different values of the categorical

data

max\_nbr\_var:

integer for the maximum number of variable that fit on a vertical graph

#### **Details**

Searches for ....

#### Value

a ggplot object

# **Examples**

. . .

theme\_impact

Create a grouped barchart for percentage

# Description

Create a grouped barchart for percentage

# Usage

```
theme_impact()
```

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# Arguments

 $result\_percent:$ 

data.frame of two column where the first is the values of the independent var and

the second column is the average associated to the indepedent variable value

result\_min optional:
result\_max optional:
save.file optional:

... Other arguments passed on to the ggsave function

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