**How to analyse the results**

This document ‘how\_to\_analyse\_results’ ([LittoSim\_model](https://github.com/LittoSim/LittoSim_model/commits/LittoDev)/[docs](https://github.com/LittoSim/LittoSim_model/commits/LittoDev/Rscripts)/) presents the results of both scripts R post-processing : leader\_data.R and manager\_data.R

For more information <https://github.com/LittoSim/LittoSim_model/blob/LittoDev/README.md>

* **Environment parameters**

The both scripts have been tested with versions 3.5.3 and 3.6.3

Know your version

*Print(version)*

"Utf-8" coding to support French language characters

*options(encoding = "utf-8")*

IMPORTANT : The list of names ‘coms’ (short names) and ‘insees’ (INSEE codes of the municipalities) must be in the same order that configuration files ‘study\_area.conf’ in Gama : MAP\_DIST\_SNAMES

|  |  |
| --- | --- |
| *Overflow\_coast-v* | *Overflow\_coast-h* |
|  |  |
| *Estuary-coast* | *Cliff\_coast* |
|  |  |

* **Define your workspace**

*setwd( "C:/LittoSIM\_GEN\_formation/blabla/")*

* Copy the directory ‘manager\_data-X.xxxxxx’ to the server in your worskpace and define it

*MANAGER\_DATA <- "manager\_data-1.587376322512E12/"*

*LEADER\_DATA <- "leader\_data-1.587376442452E12/"*

* *The directory manager content 3 directories*
  + *Csvs :one file by district*
  + *Flood\_results : corresponding to the simulations launched during the game*
  + *Shapes : ‘Land\_Use\_x’ and ‘Coastal\_Defense\_x’ for each* *of play*
* The origin files shapefiles of archetype model are in this directory :

e.g. [\\includes\cliff\_coast\shapefiles](file:///\\includes\cliff_coast\shapefiles)

* **Manage graph with ggplot2**
* If the names of axis are too long : add ‘*\n’*

*scale\_x\_discrete(label=c("Zones\n environementales****\n*** *protégées","Zones à risques* ***\n****(PPR)","Total"),*

* With package ‘ggplot’, a graph by action use *position\_stack* (absolute values) and a graph by pourcent : *position\_fill*

### Mapping variable values to colors, Change the color actions : Example : Densification action : black to grey

### *command\_to\_colors<c("1"="yellow","2"="orange","4"="darkgreen","4.5"="yellowgreen","5"="darkred","6"="red","7"="beige","8"="darkblue","26"="lightsalmon","28"="darkkhaki","29"="lightsalmon","30"="darkorchid","31"="magenta","32"="blue","44"="pink","311"="****grey****")*