Plugins for geodesign

Hrishi Ballal

May 2017

GEODESIGN HUB

What is geodesign?

- Collaborative design activity by: scientists, architects, engineers, planners, and people of the place (regular folks).

- Geodesign provides a systematic way to create a design and enables the different stakeholders to work together on a design projects.

2014 Lisbon geodesign workshop

All analog done with pen and paper

Geodesign Hub

- Software as a service to enable collaborative design
- Explicitly designed to link to other tools and models
- Used to manage geodesign complex, politically contentious projects in their early conceptual and strategic phases
- Designed to support the achievement of agreement through negotiation.

Collaborative Workshops

In person with everyone in the same room

Collaborative Workshops

Everyone online and in different locations

Application

- Climate Change and Resilience strategy
- Planning and Infrastructure design
- Tourism, Cultural and Environmental management plan
- Citizen engagement
- Advanced spatial analysis

Who is it for?

- Government agencies dealing with planning
- Local Authorities
- Housing and Infrastructure developers
- Civic Groups
- Architects, Town / City planners
- Universities and academic

MULRANNY COMMUNITY FUTURES GROUP

Mulranny Community Futures and UCD Architecture
would like to invite you to participate in

mulranny GEODESIGN workshop

a two-day geodesign workshop facilitated by Prof. Carl Steinitz
on 3rd & 4th September 2015

at the Mulranny Park Hotel, Mulranny, Co. Mayo

Workshop will run from 9am-6pm both days with tea/coffee & lunch provided

RSVP by 31st July to mulrannygeodesign@gmail.com
www.mulrannygeodesignworkshop.wordpress.com

An Chomhairle Oidhreachta
The Heritage Council

UCD School of Architecture Planning & Environmental Policy

Comhairle Contae Mhaigh Eo
Mayo County Council

ID2015 A Year of Irish Design

MULRANNY COMMUNITY FUTURES GROUP

Slievemore
•672
ACHILL ISLAND
•688
Croaghaun
Lough Acorrymore
Keel Lough
R319
P
•466
INISHBIGGLE
ANNAGH ISLAND
ACHILL SOUND
Ballycroy
Visitor Centre
NATIONAL PARK
N59
Nephin Beg
•627
311
Bangor Trail
Western Way
Glennamong
•628
•714
Lough Feeagh
Western Way / Bangor Trail
Furnace Lough
•588
Buckoogh
•698
Birreen
•524
Corraun Hill
Kildownet Castle
CLEW BAY
Rockfleet Castle
Burrishoole Abbey
NEWPORT
Church
R317
R311
N59
CLARE ISLAND
WESTPORT
N5
R330
R335
LOUISBURGH
Croagh Patrick
•764
Western Way

THE STUDY AREA

MULRANNY –

11 Townlands

Dubhbeg,

Cushlecka,

Cuillaloughaun,

Mulranny,

Doughill,

Claggan Mountain,

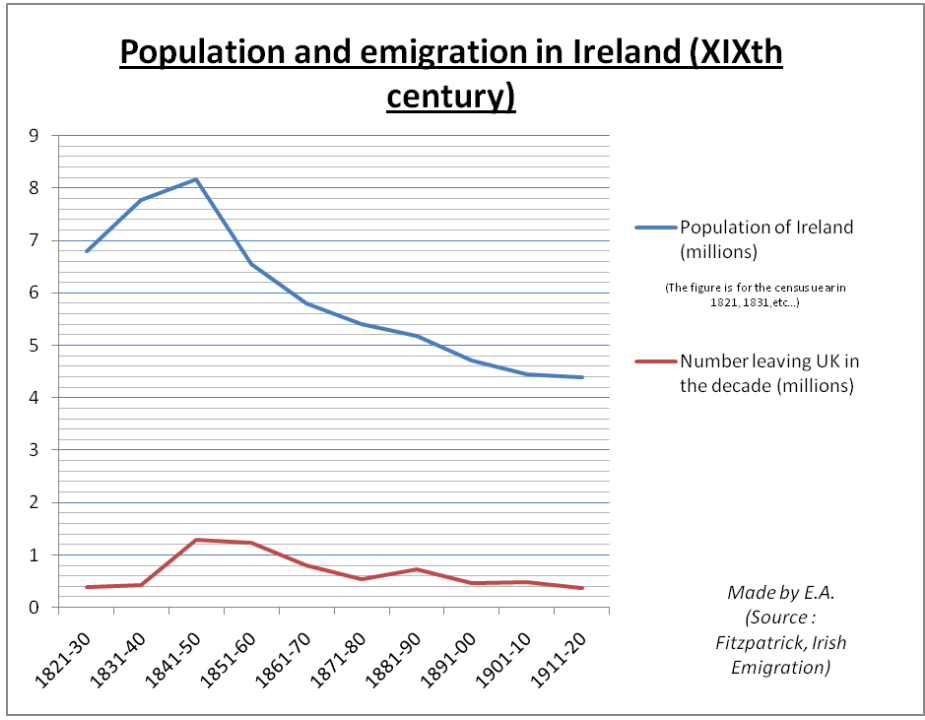
Murrevagh,

Bunahowna,

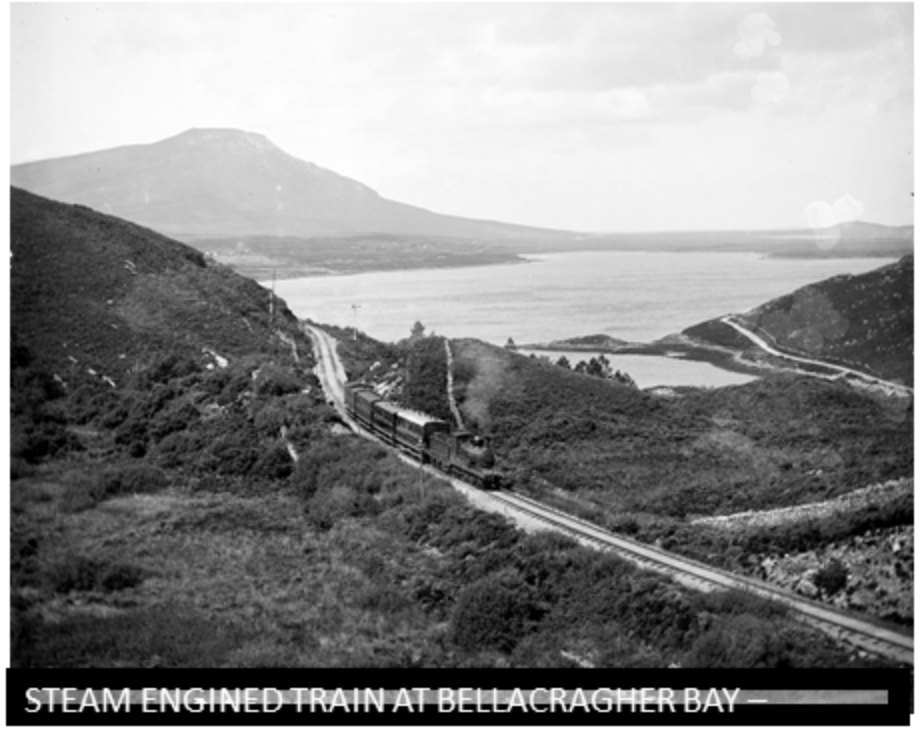
Rosturk,

Rosgaliv and

Glenamadoo


Population and emigration in Ireland (XIXth century)
9
8
7
6
5
4
3
2
1
0
1821-30
1831-40
1841-50
1851-60
1861-70
1871-80
1881-90
1891-00
1901-10
1911-20
Population of Ireland (millions)
(The figure is for the census uear in 1821, 1831, etc...)
Number leaving UK in the decade (millions)
Made by E.A.
(Source : Fitzpatrick, Irish Emigration)

- To tackle endemic poverty in Mayo
- The Midland Great Western Railway Line was built in 1894
- Under the Balfour Light Railways Act
- The causeway & seven miles of Victorian trails were developed
- Mulranny Railway Hotel opened, complete with electric light



STEAM ENGINED TRAIN AT BELLACRAGHER BAY –

MULRANNY RAILWAY STATION 1894

MULRANNY RAILWAY HOTEL 1897

VICTORIAN CAUSEWAY 1902

MULRANNY REACHES LOW POINT IN NEW MILLENIUM

MULRANNY RAILWAY HOTEL DERELICTION BY 2003

DISUSED RAILWAY LI E IN 2000

MULRANNY RAILWAY STATION c1980

MULRANNY CAUSEWAY

0

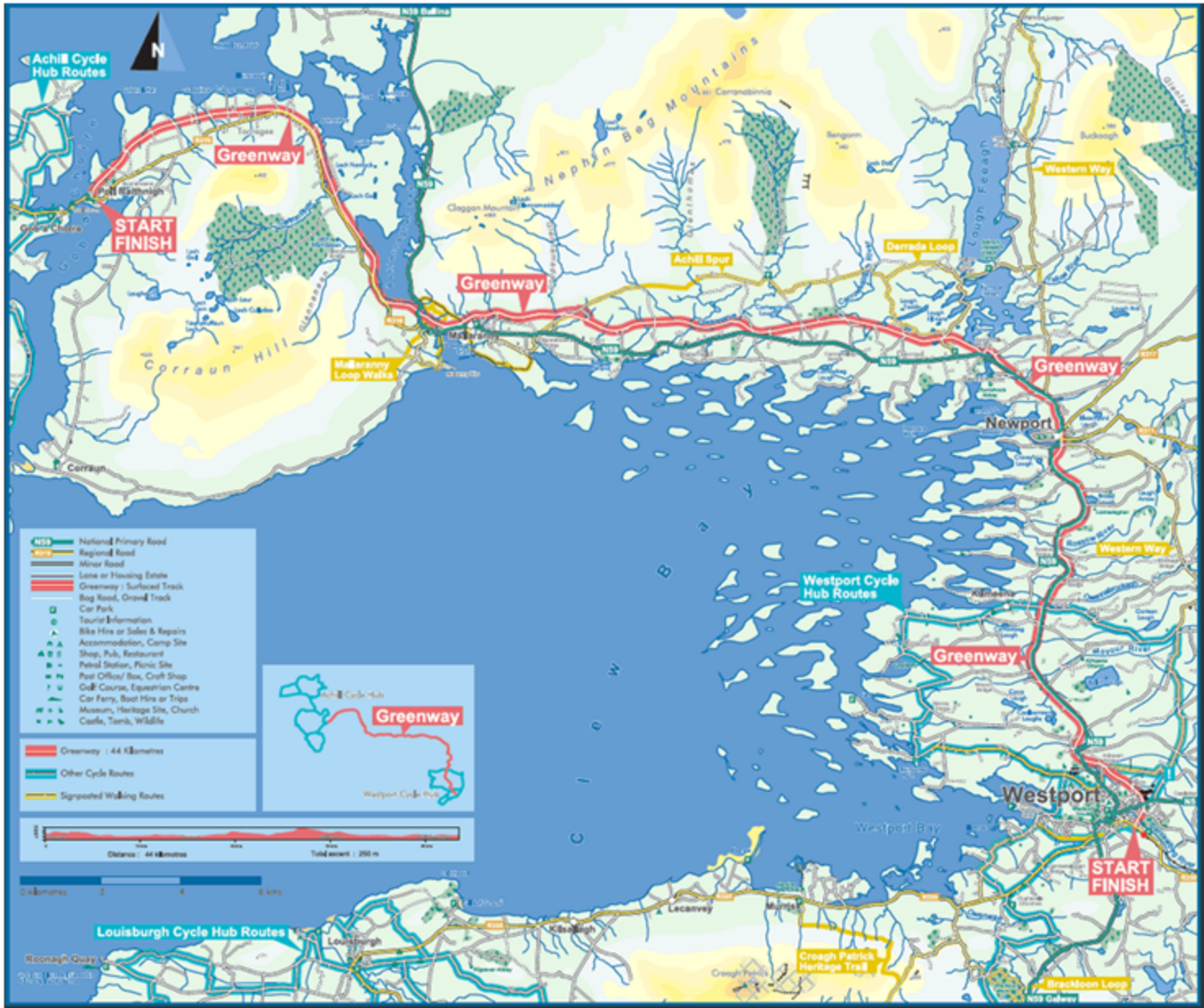
Mulranney Park Hotel restoration in 2005

4 Communities
Came together
MulrannyTiernaur,
Deradda, , Newport.

Burrishoole Loop
Walks

MCC Bridges

Great Western
Greenway 2010



- Mulranny Walking Tourism had its origins in Heritage Week 2006
- First Mulranny Walking Event in 2010
- Mulranny Loop Walk 6km opened 2010
- Worth €250,000 in 4 years
- Target €1m in 4 years

Article from the Heritage Council's - Heritage Outlook Magazine - Summer 2009

The Old Irish Goat

HERITAGE AGRICULTURE

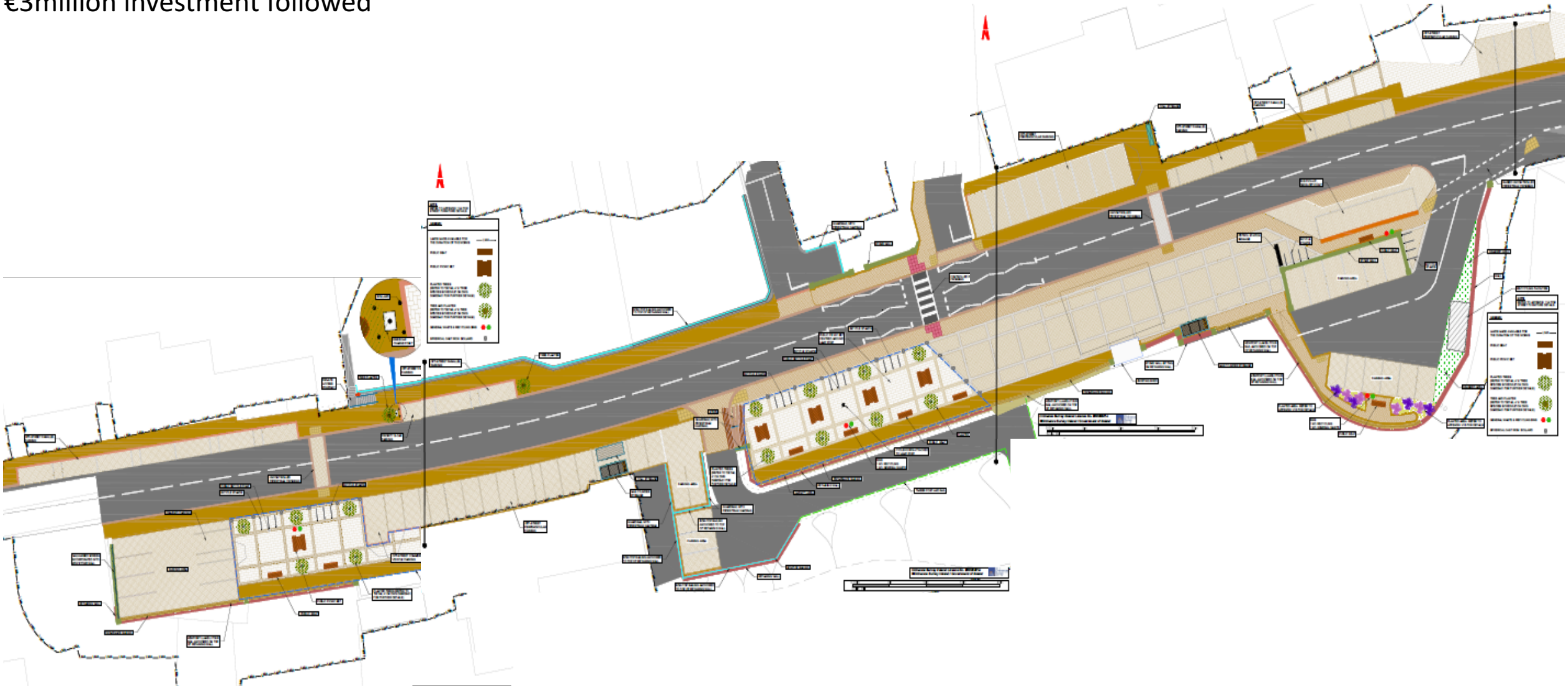
Heritage as an Engine of Economic Growth: Mayo

Friday 15th June 2012, 9.30am - 1.30pm

Macalla hall, Lough Lannagh Holiday Village, Castlebar

Develop a Promenade *'a unique feature in Mayo'*

€3million investment followed



Geodesign Objectives

POPULATION: - Growth from 500 to 1500

POPULATION:- Reverse drop in National School numbers from 71 to 51 in 5 years

HOUSING:- higher occupancy / affordable & energy efficient housing / infill development

EMPLOYMENT:- Tourism growth greater than national targets. Farm Incomes to improve.

TOURISM:- New Guest House or small Hotels / social enterprise to support 30 new jobs

WALKING TOURISM:- create €1m value in 4 years

HNV FARMING:- generate €2m over 5 years

BROADBAND:- 30mb / sec

BIODIVERSITY metrics: e.g. Red Grouse, Belted Beauty, Old Irish Goat

SIGN

THE WORKSHOP SCHEDULE

Day One

09:00 – 09:30 Introductions and orientation

09:30 – 10:15 Carl Steinitz overview lecture on the workshop methods & Delphi exercise

10:15 – 10.45 Description of Study Area and organisation into ten Evaluation Teams

10.45 – 11:15 Tea/Coffee with Evaluation Team

11.15 – 11:45 Demonstration of online tool and how to make evaluation maps

11:45 – 13:30 Create 10 System Evaluation Maps in parallel: record ideas for policies & projects

(Including lunch with teams between 13:00 - 14:00)

13:30 – 15:30 Make "Ten Recommendations" diagrams and rank order them.

15:30 – 16:00 Tea/Coffee

16:00– 17:30 Present Evaluation Maps to whole group and approve them for workshop use

End Day One

Day 2

09:00 – 09:30 Organise six Change Teams

09:30 – 12:00 Prepare Change Version 1

(including tea/coffee with team)

12:30 – 13:00 Assess impacts of Change Version 1

12:30 – 13:00 Lunch

13:00 – 14:00 Revise to create Change Version 2

14:00 – 14:30 Assess impacts of Change Version 2

14:30 – 14.45 Tea/Coffee

14:45 – 15:15 Concise Presentation of the six designs

15:15 – 17:30 Comparative Decision Assessments and discussion

Workshop Ends

Comhairle Contae Mhaigh Eo
Mayo County Council
An Chomhairle Oidhreachta
The Heritage Council
Mulranny Community Futures
UCD Dublin
Supported by ID2015 A Year of Irish Design

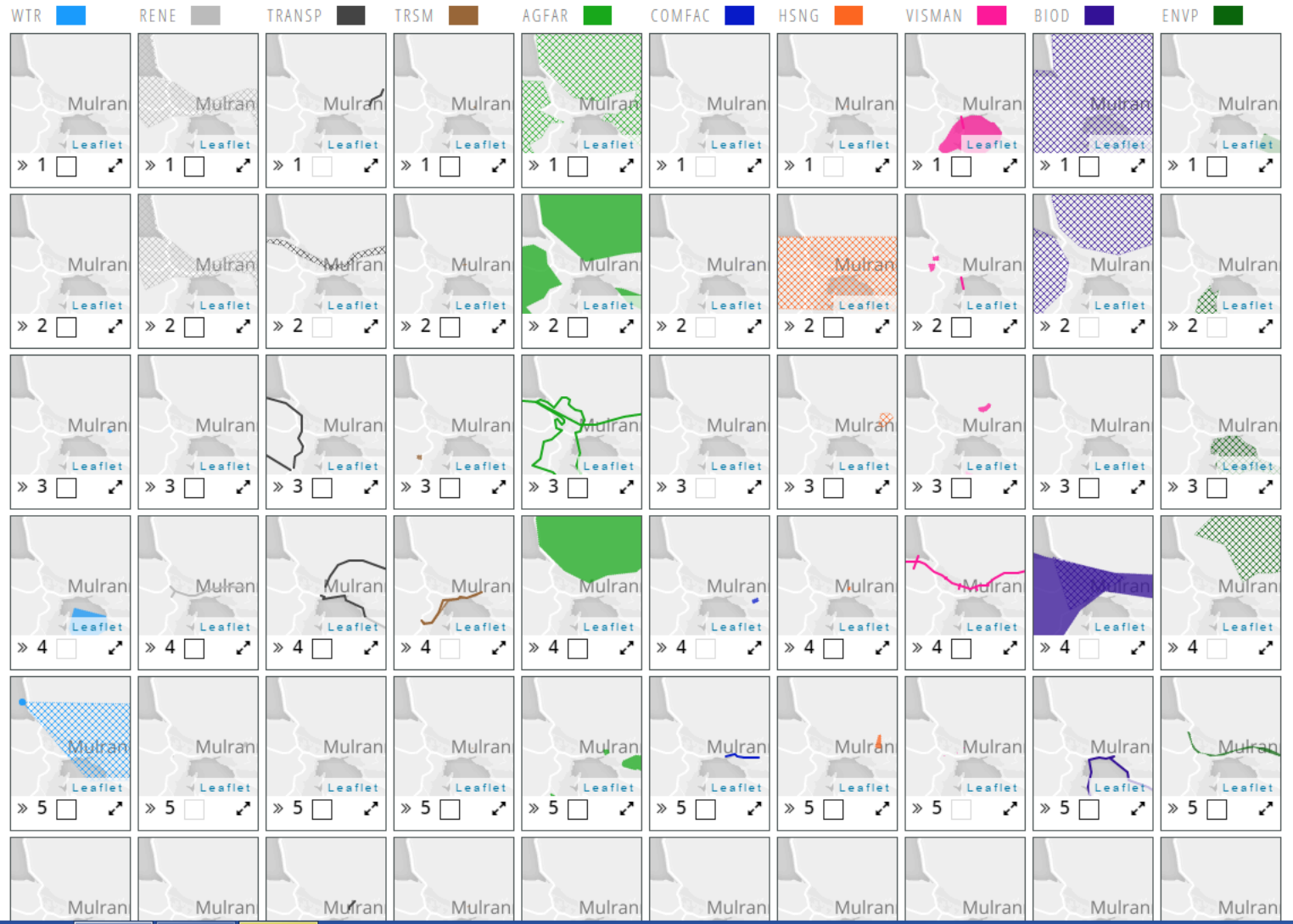
INTRODUCTION AND OVERVIEW

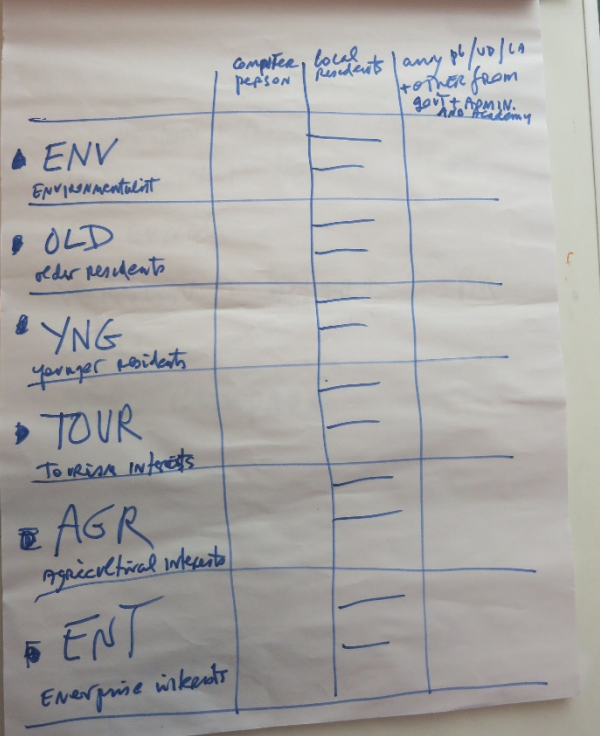
TEN SYSTEM-BASED TEAMS
PREPARE EVALUATION MAPS

TEN SYSTEM-BASED TEAMS
PROPOSE POLICIES AND PROJECTS
AS COLOR-CODED DIAGRAMS

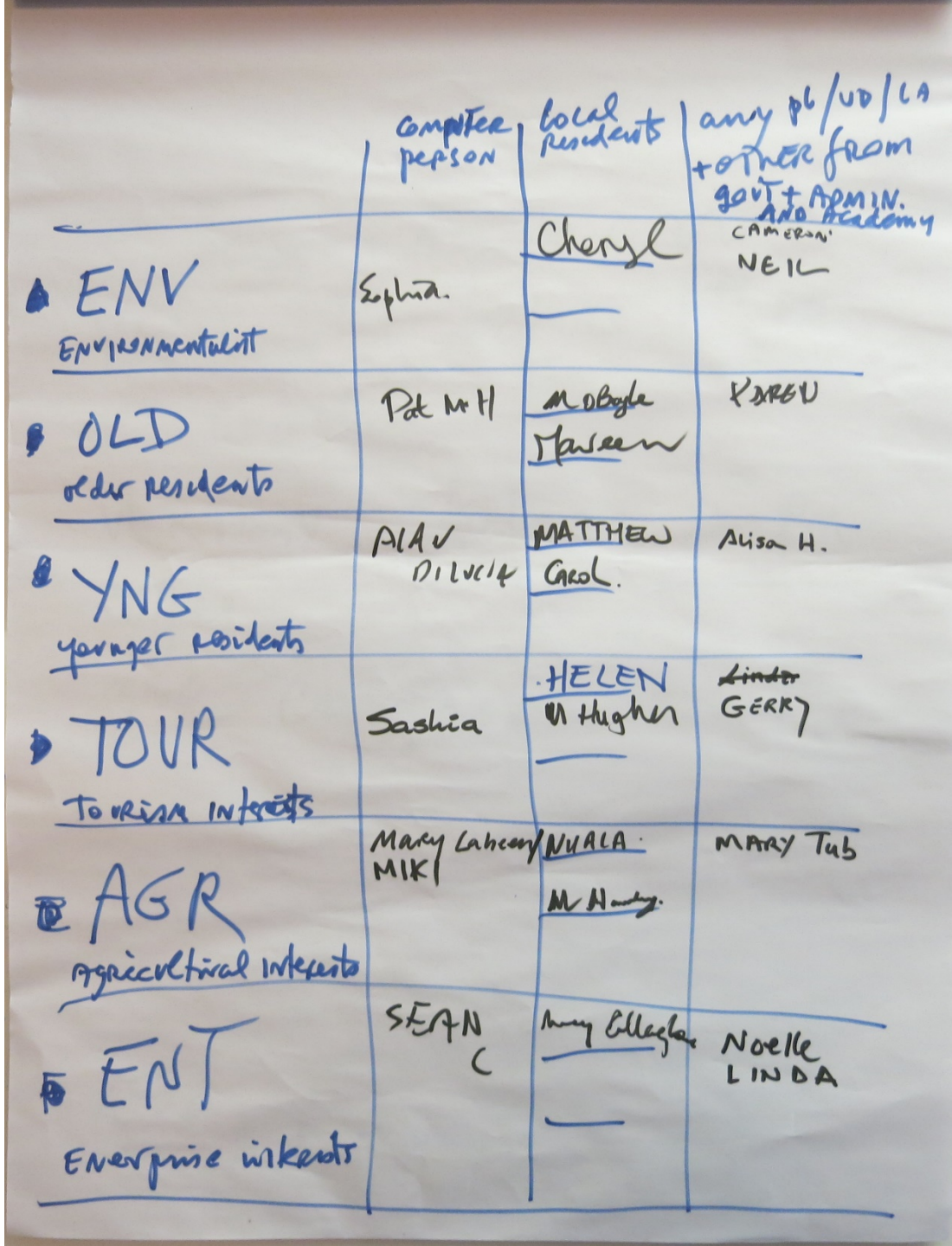
ALL DIAGRAMS

+ ADD A DIAGRAM





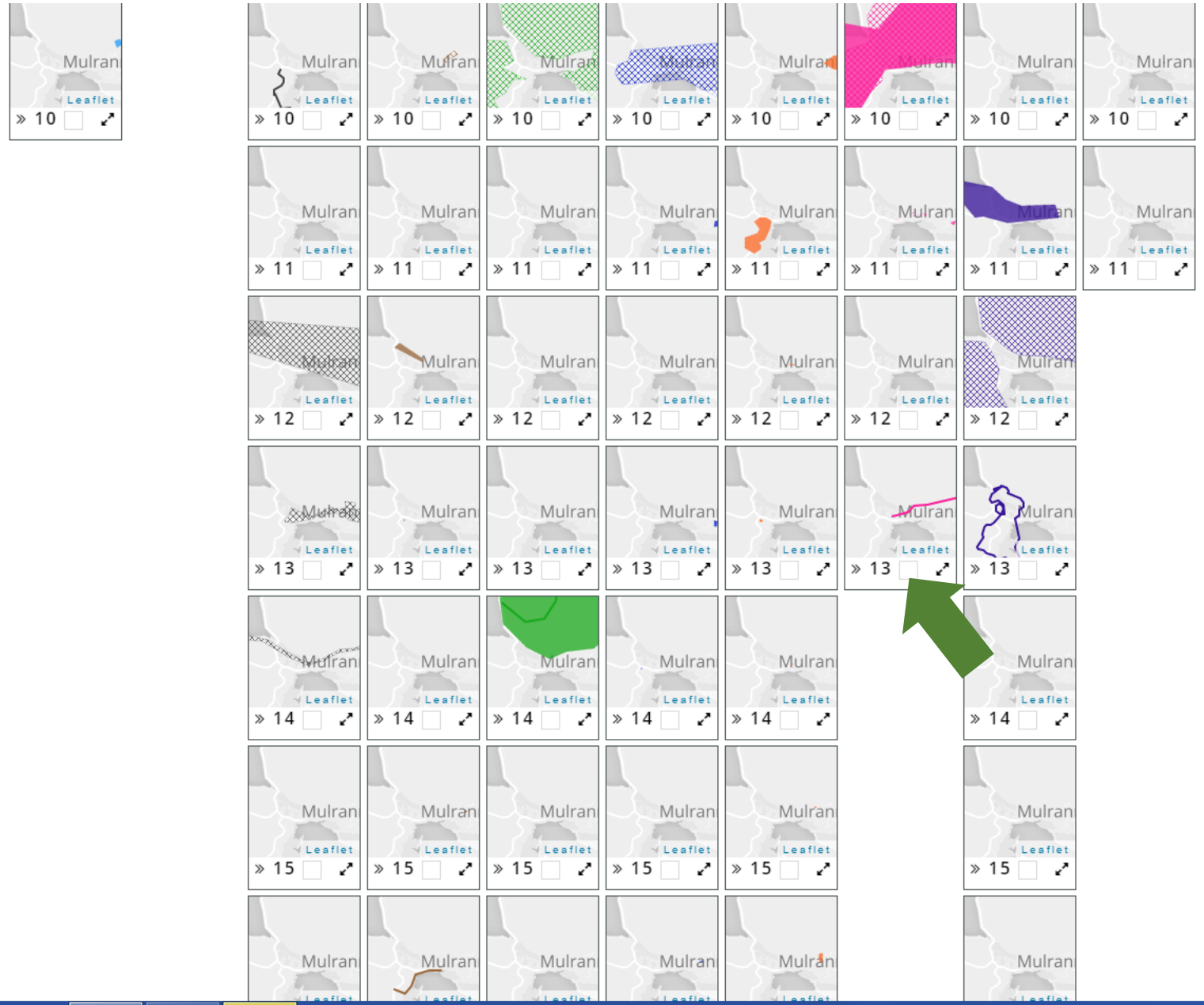
FORMING SIX CHANGE-DESIGN TEAMS



Geodesign Hub

https://www.geodesignhub.com/p/7fa5ecdcdf4f546b/diagrams/

WTR RENE TRANSP TRSM AGFAR COMFAC HSNG VISMAN BIOD ENVP



6:42 PM
9/7/2015

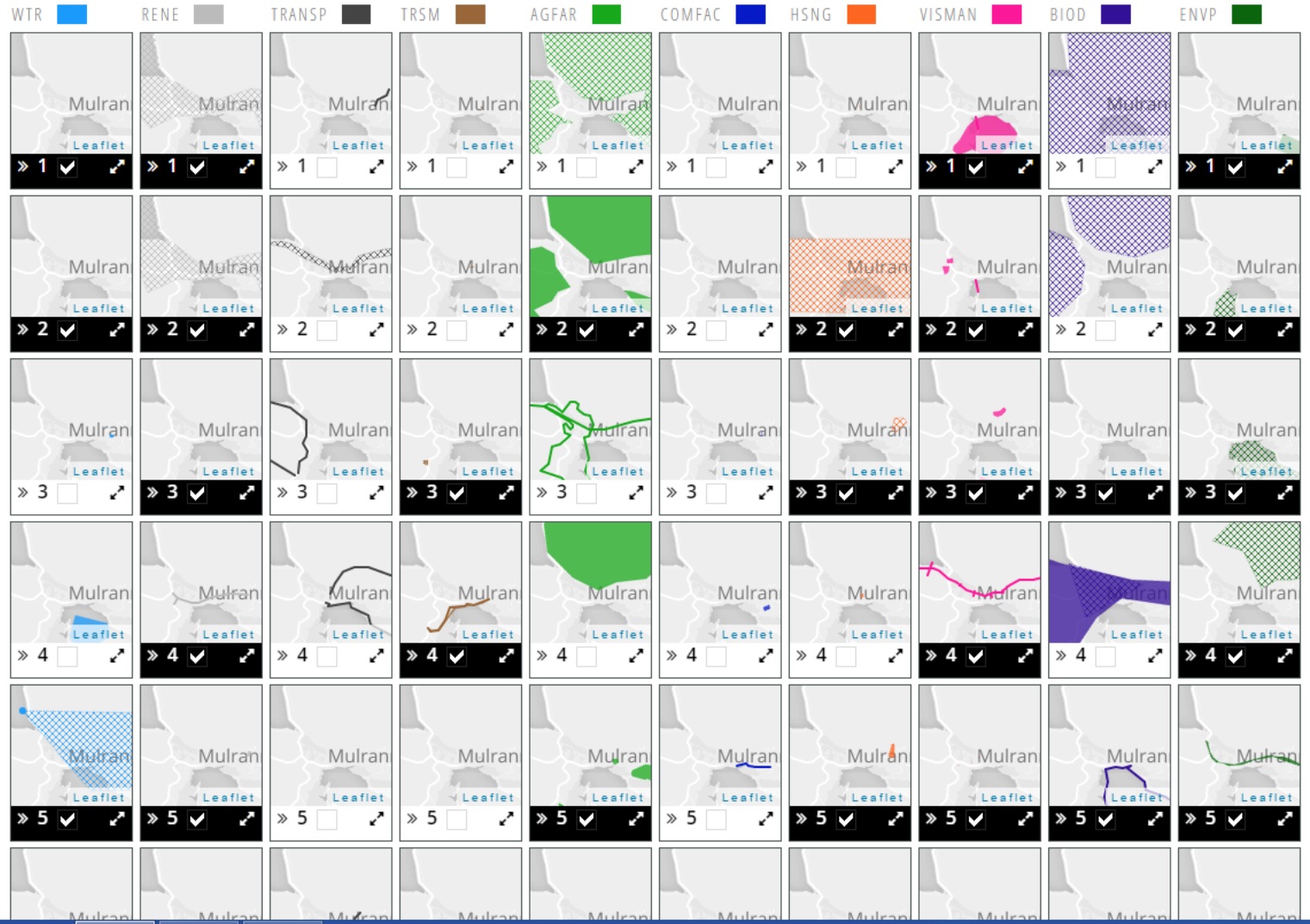
Geodesign Hub

https://www.geodesignhub.com/p/7fa5ecdcdf4f546b/diagrams/

WTR RENE TRANSP TRSM AGFAR COMFAC HSNG VISMAN BIOD ENVP

ALL DIAGRAMS

+ ADD A DIAGRAM



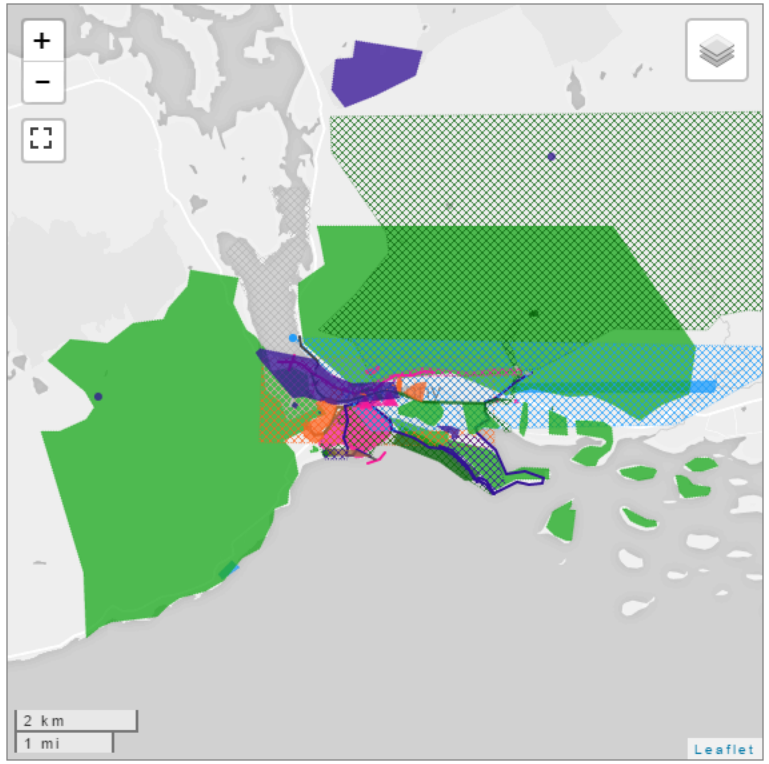
10:56 AM
9/7/2015

WTR RENE TRANSP TRSM AGFAR COMFAC HSNG VISMAN BIOD ENVP

» 28

MY CHANGES

Sync Maps



TRAN TRSM AGFA COMF HSNG VISM BIOD ENVP WTR RENE Constraints

OUR CHANGES

CHOOSE A TEAMMMATE.

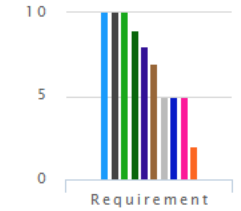
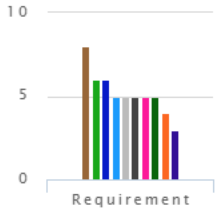
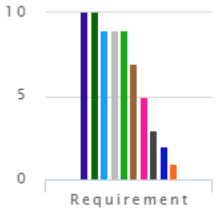
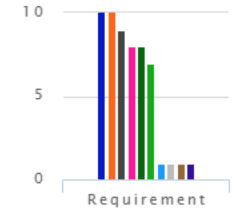
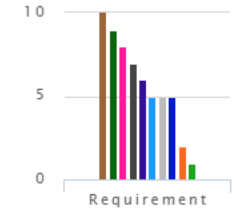
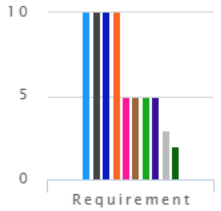
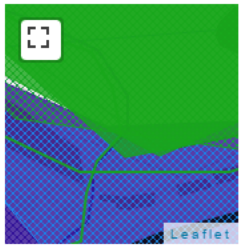
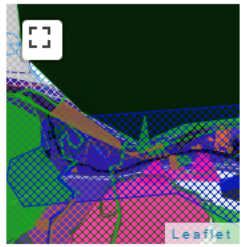
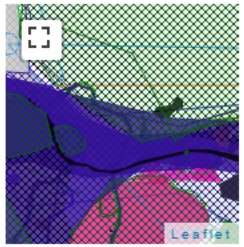
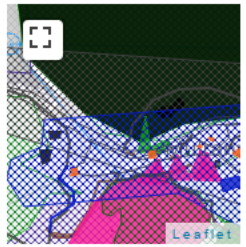
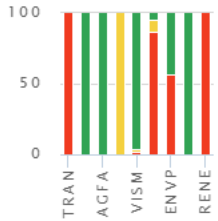
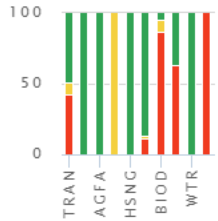
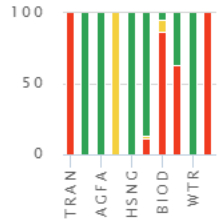
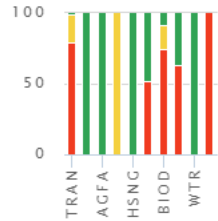
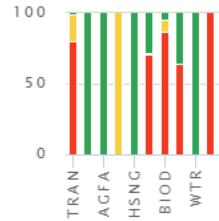
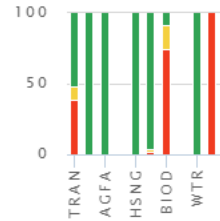
Hover over a feature to show details

SIX TEAMS MAKING CHANGE-DESIGNS

Geodesign Hub

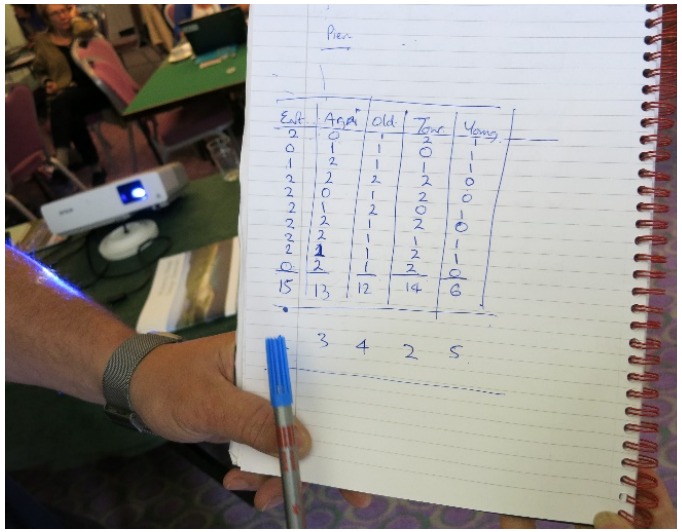
https://www.geodesignhub.com/p/7fa5ecdcdf4f546b/compare/

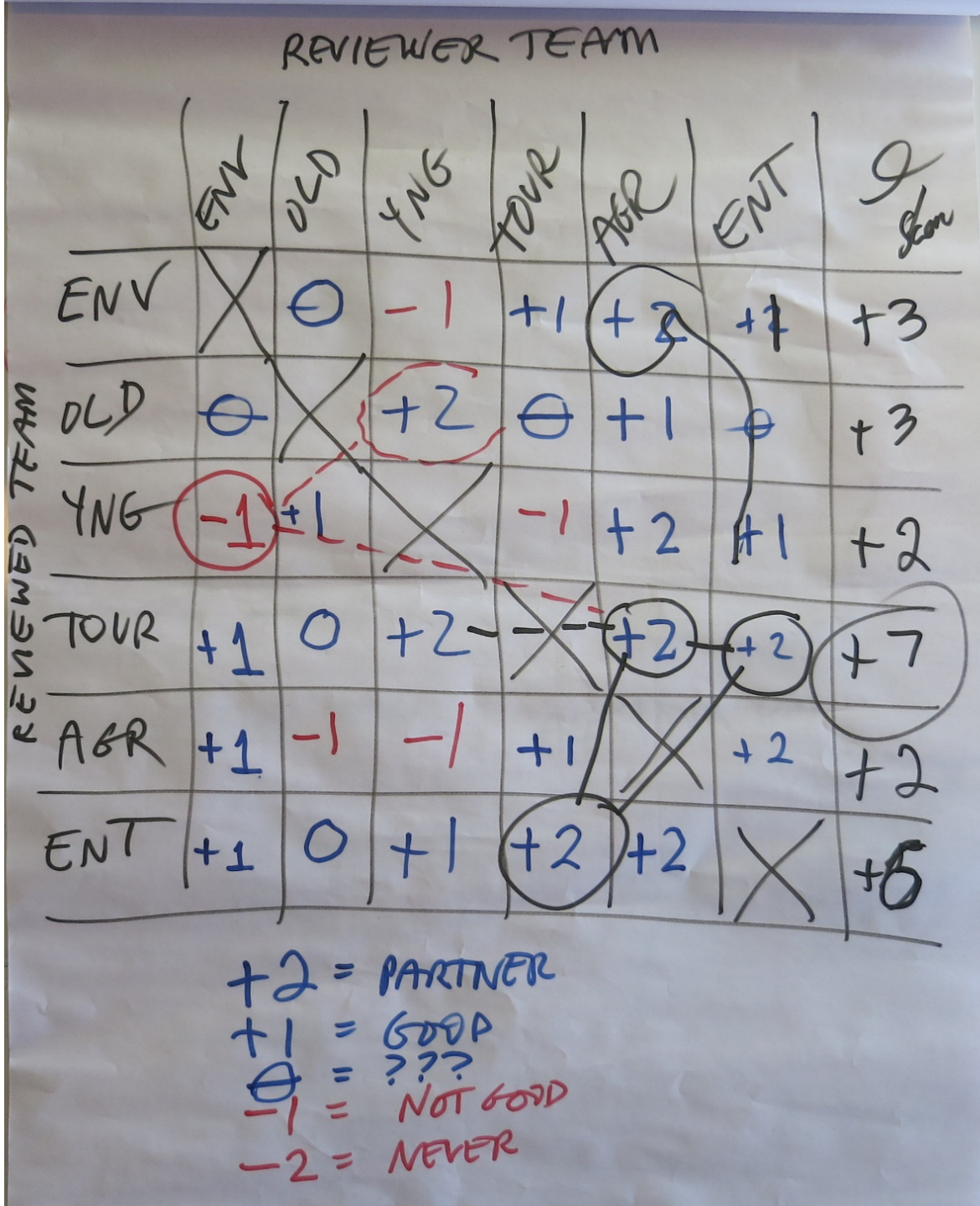
WTR RENE TRANSP TRSM AGFAR COMFAC HSNG VISMAN BIOD ENVP

AGR V1	ENTERPRISE V01	ENV_V1	OLDER PEOPLES PROJEC / TRSM V1		YNG V1
DECISION MODEL	DECISION MODEL	DECISION MODEL	DECISION MODEL	DECISION MODEL	DECISION MODEL
					
SYNTHESIS MAP	SYNTHESIS MAP	SYNTHESIS MAP	SYNTHESIS MAP	SYNTHESIS MAP	SYNTHESIS MAP
					
IMPACT SUMMARY	IMPACT SUMMARY	IMPACT SUMMARY	IMPACT SUMMARY	IMPACT SUMMARY	IMPACT SUMMARY
					
TOTAL COST EUR	TOTAL COST EUR	TOTAL COST EUR	TOTAL COST EUR	TOTAL COST EUR	TOTAL COST EUR
25.98m	178.63m	183.44m	7.63m	184.54m	14.1m
5.56m	18.05m	6.8m	5.24m	16.77m	13.3m
583.59m	1.78b	44.57m	174.83m	578.28m	664.39m
0	0	0	0	0	0
Total: 617.07m	Total: 1.98b	Total: 235.56m	Total: 188.01m	Total: 968.37m	Total: 693.73m

11:21 AM
9/7/2015

NEGOTIATION TOWARDS ONE AGREED CHANGE-DESIGN





MAKING ADDITIONAL CHANGE-DESIGN VERSIONS WITH SHARING AND NEGOTIATION

File Edit View History Bookmarks Tools Help

Geodesign Hub

https://www.geodesignhub.com/p/7fa5ecdcdf4f546b/analyze

Search

Harvard Secure File Tr...

GENERAL AGREEMENT ON AGRICULTURE PLAN AND TOURISM AND ENVIRONMENT

V4: AGRV4

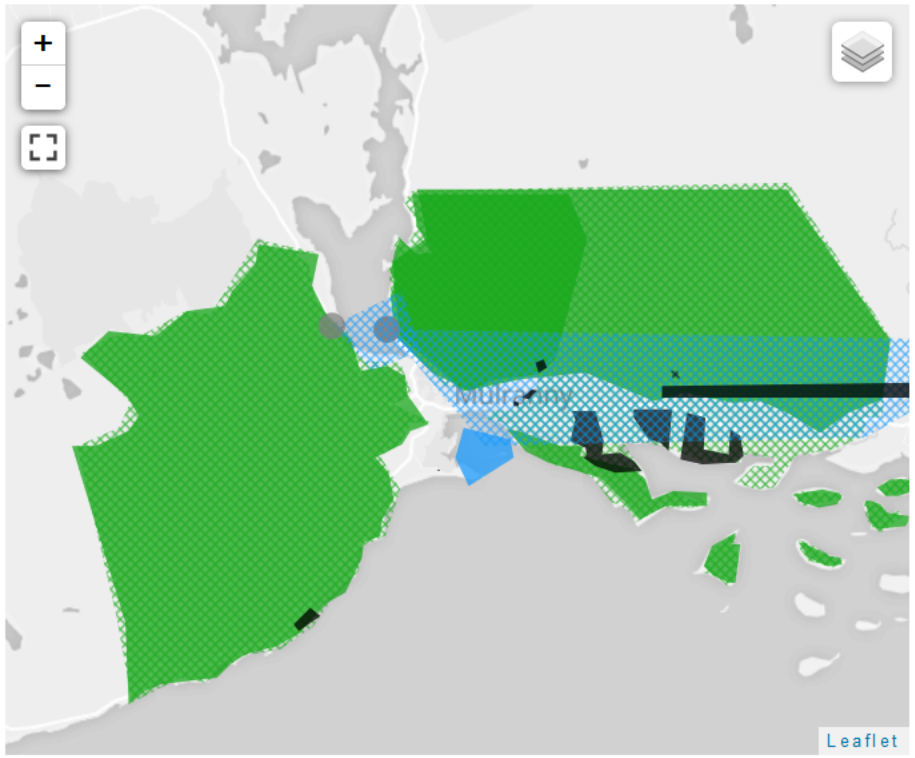
V3: TOURISM 3

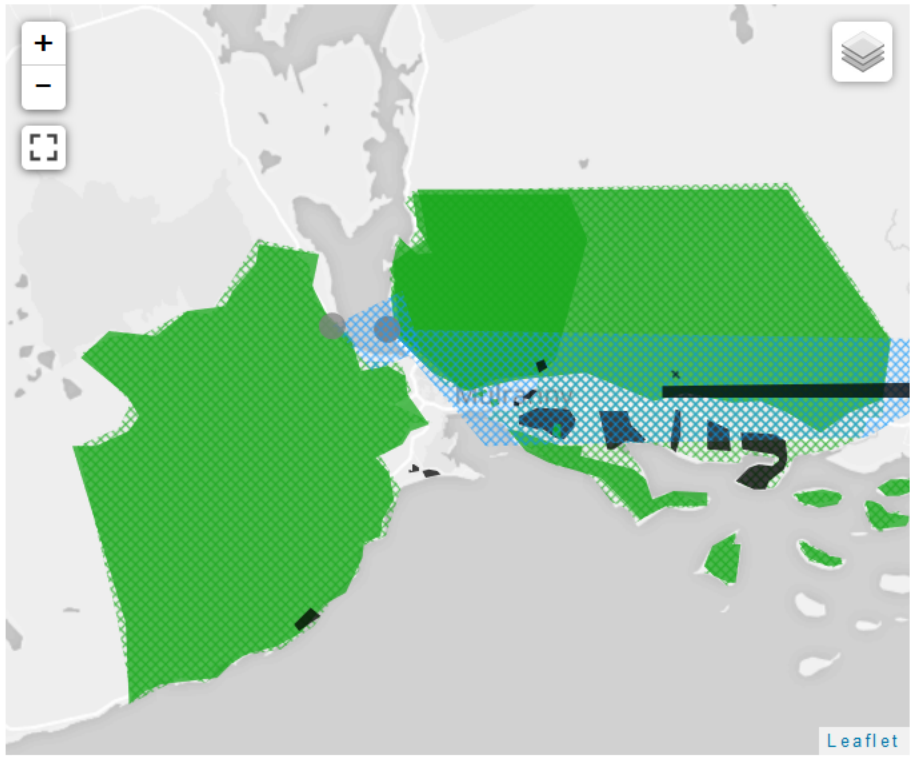
SIDE BY SIDE ONE ON TOP OF THE OTHER OVERLAY

FILTER BY SYSTEM

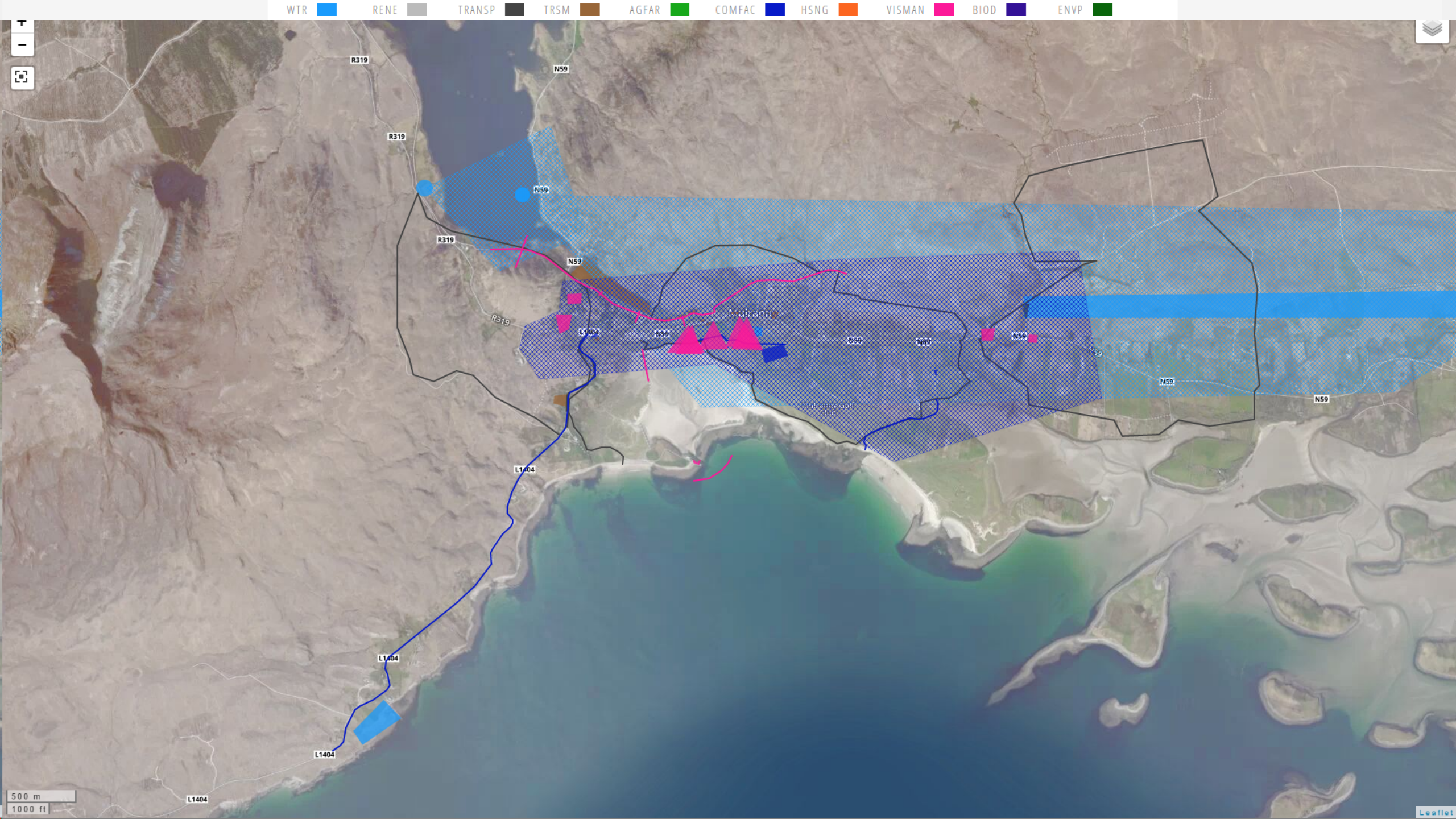
TRANSP TRSM AGFAR COMFAC HSNG VISMAN BIOD ENVP WTR RENE

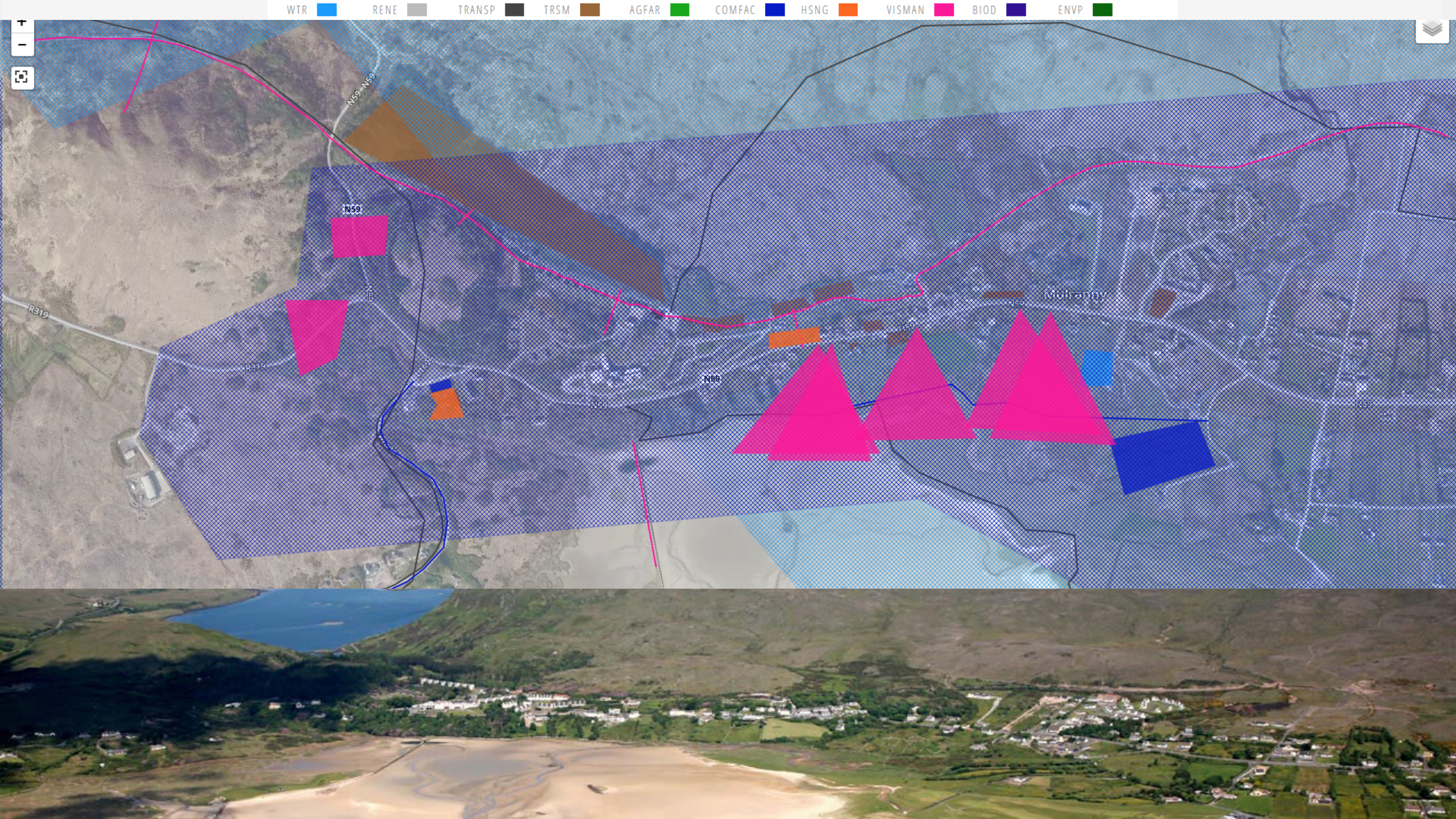
SHOW ALL DIAGRAMS





12:44 PM
9/9/2015


WTR
RENE
TRANSP
TRSM
AGFAR
COMFAC
HSNG
VISMAN
BIOD
ENVP
R319
N59
L1404
Mulranny
Mulranny Golf Club
500 m
1000 ft
Leaflet

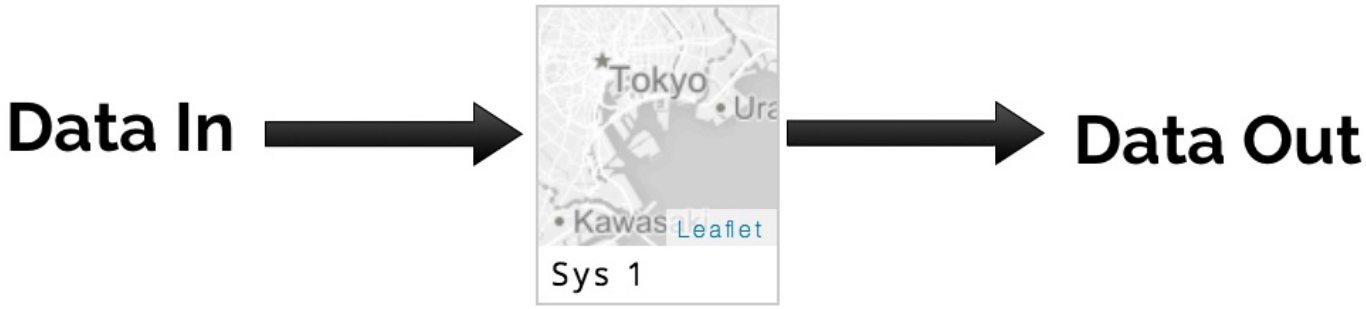

WTR
RENE
TRANSP
TRSM
AGFAR
COMFAC
HSNG
VISMAN
BIOD
ENVP
N59
R319
N88
Mulranny

WTR RENE TRANSP TRSM AGFAR COMFAC HSNG VISMAN BIOD ENVP

Sector	In	PC	Yes	Name	Description	Organisation		Mulranny	MCC	UCD	Other	Transport/Service/Parking/Trails/Paths	Enterprise (Tourism & Creativity)	Enterprise (Agriculture & HNV Farming)	Community / Care Facilities	Housing	Cultural Landscape and "Image"	Habitat Biodiversity	Environmental Protection (incl Coastal)/Safety	Water management (incl Sewage)	Renewable Energy			
Facilitator	1		1	Orla Murphy	Architect	UCD	o.murphy@ucd.ie			1														
Facilitator	1		1	Carl Steinitz	Landscape Planner	Harvard GSD	csteinitz@gsd.harvard.edu				1													
Facilitator	1		1	Hrishi Billal	Engineer	UCL	hrishikesh.ballal.12@ucl.ac.uk				1													
Facilitator	1		1	Tess Canfield	Landscape Architect						1													
Futures	1		1	Mathew Carolan	Guide		matthew_carolan@hotmail.com	1				1												
Technical Expert	1	x	1	Robert Coyne	Civil Engineer	MCC	robcoyne@mayococo.ie		1			1												
Futures	1		1	Saskia Eland	Guide / Artist	Futures	saskiaeland@gmail.com	1				1												
Futures	1		1	Nuala Ginnelly	Bank Clerk	Mulranny Tourism	nginnelly@eircom.net	1					1											
Futures	1		1	Cheryl Browne	Artist	Gift of Hands	cherylcobernbrowne@gmail.com	1					1											
Technical Expert	1	x	1	Noelle Angley	Architect	MCC	nangley@mayococo.ie		1				1											
Local Stakeholder	1		1	Sean Carolan	Farmer	Environmental Group	carolan.sean1@gmail.com	1						1										
Technical Expert	1		1	Mary Turbidy	Ecologist	Turbidy Associates	mtubridyassociates@gmail.com				1			1										
Technical Expert	1	x	1	Carmel Austin	GIS Technician	MCC	cworsfold@mayococo.ie		1					1										
Technical Expert	1	x	1	Pat McHale	Engineer	MCC	pmchale@mayococo.ie		1						1									
Futures	1		1	Martin Hanley	Farmer			1							1									
Local Stakeholder	1		1	Mary O Boyle	Social Worker	Futures	maryboboyle@gmail.com	1							1									
Futures	1		1	Mary Callaghan	Retired Chef	Mulranny Tidy Towns	fairwaymary@gmail.com	1								1								
Technical Expert	1		1	Bernadette Cunningham	Senior Planner	MCC	bcunningham@mayococo.ie		1							1								
Technical Expert	1	x	1	Mary Laheen	Architect/Lecturer	UCD	mary.laheen@ucd.ie	1		1						1								
Local Stakeholder	1		?	Padraig Doherty	Builder	Docon	padraigdoherty9@gmail.com	1									1							
Technical Expert	1	x	1	Alison Harvey	Planner/Heritage Council	Heritage Couuncil	aharvey@heritagecouncil.ie				1						1							
Technical Expert	1		1	Karen Foley	Head School of Landscape Architecture	UCD	karen.foley@ucd.ie			1							1							
Futures	1		1	Helen Walker	Retired Social Worker	Gift of Hands	123helenwalker@gmail.com	1										1						
Technical Expert	1	x	1	Sophia Meeres	UCD Landscape Lecturer	UCD	sophia.meeres@ucd.ie			1								1						
Technical Expert	1		1	Deirdre Cunnningham	Heritage Officer	MCC	dcunningham@mayococo.ie		1									1						
Futures	1		1	Gerry Walsh	Archaeologist	Mayo Co Co					1								1					
Futures	1		1	Maureen Mulloy	Retired Civil Servant	Tidy Towns	maureenmulloy@eircom.net	1											1					
Technical Expert		x		Linda Maher	PhD candidate BE policy	UCD	linda.maher@ucdconnect.ie			1									1					
Futures	1	x	1	Michael Hughes	Fisheries Officer	Futures Chair	michealhughes@gmail.com	1												1				
Technical Expert	1		1	Miki ?	Post Grad Student	UCD	-			1										1				
Futures	1		1	Mary Joyce	Retired Social Worker	Futures	mjmaryjoyce1@gmail.com	1												1				
Futures	1		1	Carol Loftus	School Secretary	Green Plan	chloftus29@gmail.com	1													1			
Technical Expert	1	x	1	Alan Dilucia	Planner	MCC	adelucia@mayococo.ie		1												1			
Technical Expert	1		1	Neil Mc Cabe	Green Plan©	Green Plan	nemodfb@gmail.com				1										1			
	29							15	7	6	7	3	3	3	3	3	3	3	3	3	3			

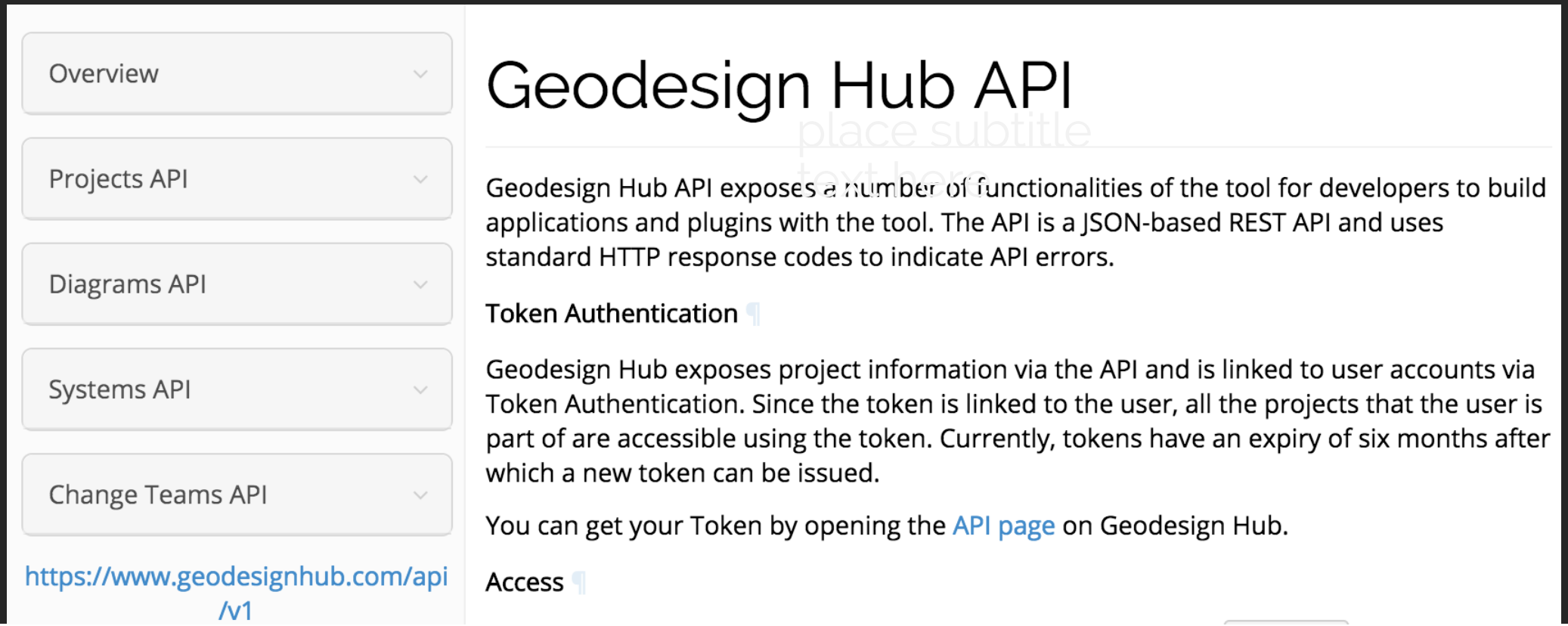
API

your data



Supporting Designing in Diagrams

GEODESIGN HUB



API Documentation

https://www.gedoesignhub.com/api/

Projects

All data about projects

Systems

All data about systems within a project

Diagrams

All data about diagrams within projects

Change Teams

All data about designs constructed

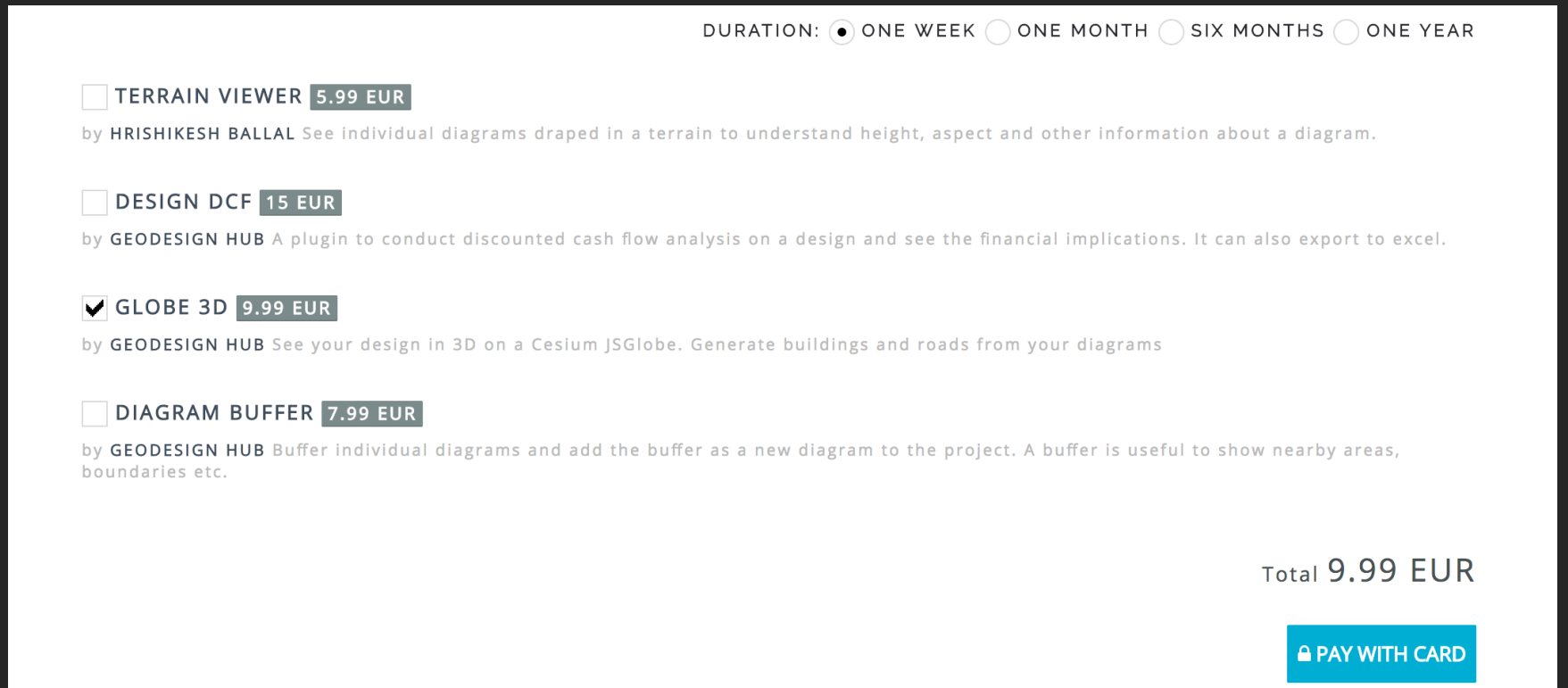
API Endpoints

RESTful endpoints with standard HTTP responses for your tools and models

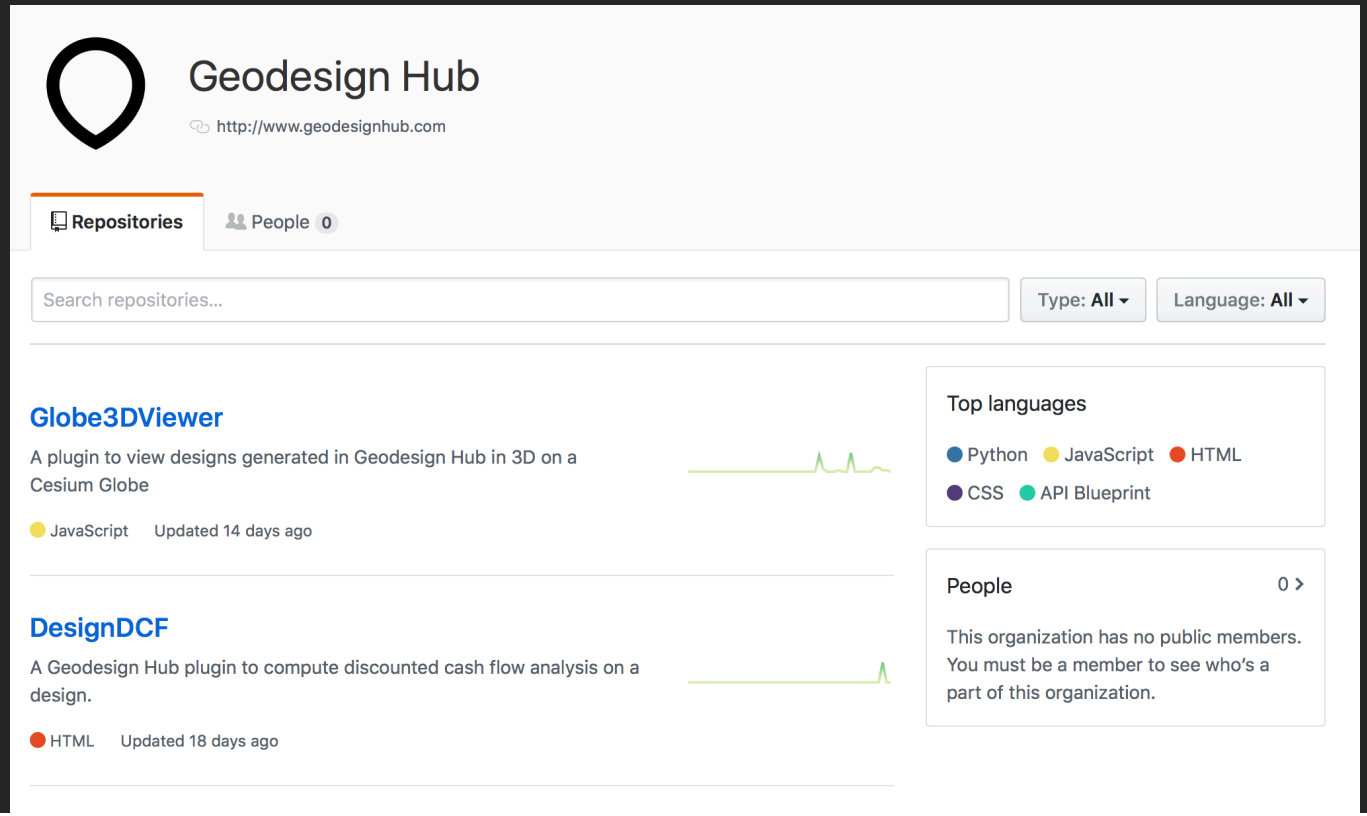
some plugins

https://github.com/geodesignhub

id	Plugin Name	category
01	3D Viewer	Visualization
02	Discounted Cash Flow Analysis	Financial
03	Buffer	GIS



Plugin Store



Github

https://www.github.com/geodesignhub/

thank you!

hrishi@geodesignhub.com

GEODESIGN HUB