

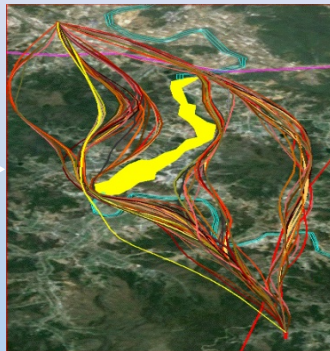
## Modified Alternative Scenarios

Data Preparation  
(3~4 business days)



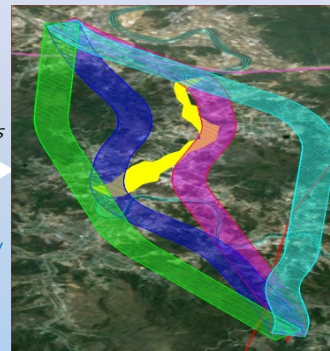
- Design criteria
- Regional scope
- Unit prices
- Control point (area & crossing methods, etc.)

## Alignment Search (2~3 business days)



Millions of alignments  
are provided by  
thorough search under  
given condition

## Corridor Definition (1~2 business days)



Multiple alignments are grouped and corridors are defined

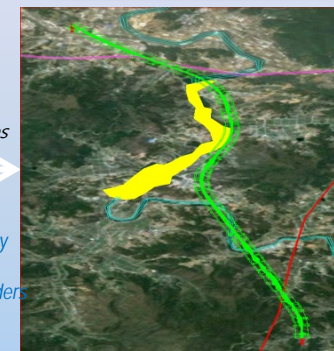
For each defined corridors the optional alignment is provided

## Micro Tuning (2~3 business days)



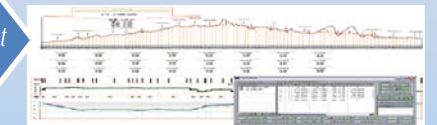
Micro tuning for each alignment finally chosen for each corridors

## Final Optimal Alignment



The optimal alignment is concluded

## Detailed Design



Detailed construction cost is calculated after detailed design

**Export**  
Alignment  
Data

## Required Data for Alignment Optimization

## Prerequisite Data

- Design Criteria
  - Design speed, min. radius, max. grade, etc
  - Typical cross-section
- Regional Scope
  - Start/end points
  - Considered zones
- Unit prices
  - Earthwork, bridge, tunnel, etc.
- Control points (areas) and crossing methods
  - Avoided areas
  - Location of interchange, railroad station
  - Existing or planned road, railroad, river, etc

## Optional Data

- Zone value
- Environment impact data

## Reports

III. Optimal alignment information

Total length 13.230 km

III - 1. Horizontal information

SP No.	X	Y	Curve radius(m)
SP1	104445.4962	104445.7003	
SP2	104959.1614	1047714.7743	17601

III - 2. Vertical information

SP No.	Sta	L1(m)	Max cur. align (m)	HWL Sta.	LWC Sta.	K
0	0+400.000	17.00				
1	0+400.000	129.92	0.00	0+500.1290	0+500.1290	0.22

## III-3 Structures information (Bridge)

Bridge Construction Information				
Spec	Bridge_OI			Num. of use
	BP	EP		
	4-900 0000	5-900 0000		11
	(cyrptic)			
Super structure		300 0		21 9
	Sta	Hot (m)		Arctic(m)
Brain abutment	4-400 0000	5 132		11
End abutment	5-900 0000	5 002		11
Plan1	5-402 5000	5 000		22
Plan2	5-402 5000	7 000		28
Elav-1	5-402 5000	5 000		11

