

11th
FORUM8
DESIGN FESTIVAL
2017-3DAYS +EVE
All about FORUM8 & Products.

2017 **11.15** wed - **17** Fri EVE 11.14 tue
品川インターシティホール
SHINAGAWA InterCity Hall



WORLD16

PAOLO FIAMMA
School of Engineering
University of Pisa Italy



**PARAMETRIC INFORMATION
MODELING SYSTEM
FOR UC-WIN/ROAD
NEW APPLICATION
TO PLAN DESIGN, TO BUILD,
TO MANAGE AND TO MAINTAIN
IN THE A.E.C. FIELD**

In **2014** the **European Union** has adopted the

European Union Public Procurement Directive

EUPPD 2014/24/UE

FOR PUBLIC WORKS CONTRACTS AND DESIGN CONTESTS

where is established that: “**Member States of the European Union** may

require the use of specific electronic tools, such as of

building information electronic modeling tools or similar”.

In order to introduce this European Directive in Italy the Italian Law

“D. L. n. 50 of 4/2016” has established to set up a

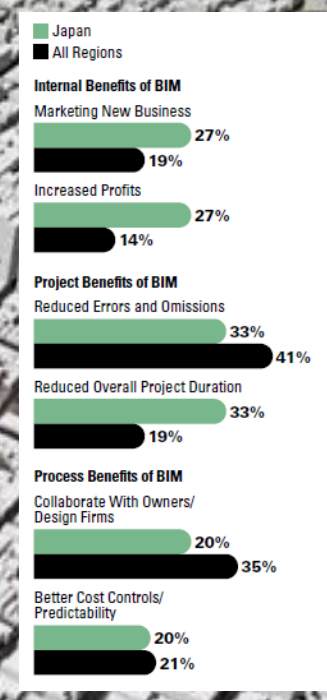
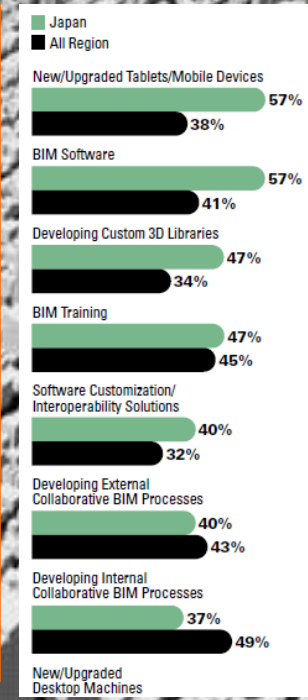
Commission of the Ministry of Infrastructure and Transport to define:

“The **modalities** and the **times** for the **progressive introduction**

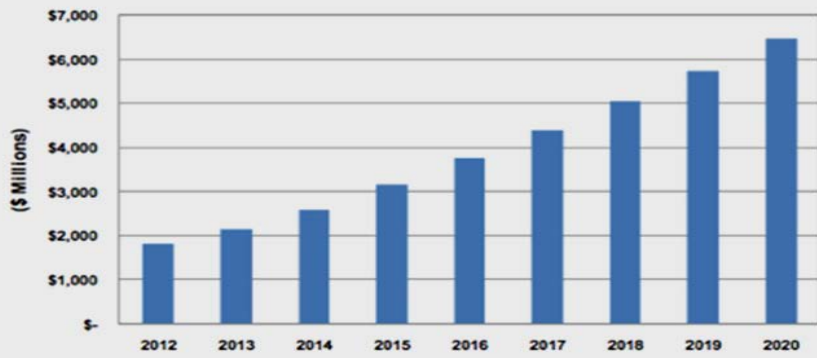
of the **obligation** of the above **methods** for the

contracting stations, the concession authorities and the economic operators”

We are changing our **mental landscape** of our actions within the environment in terms of **digital thought**

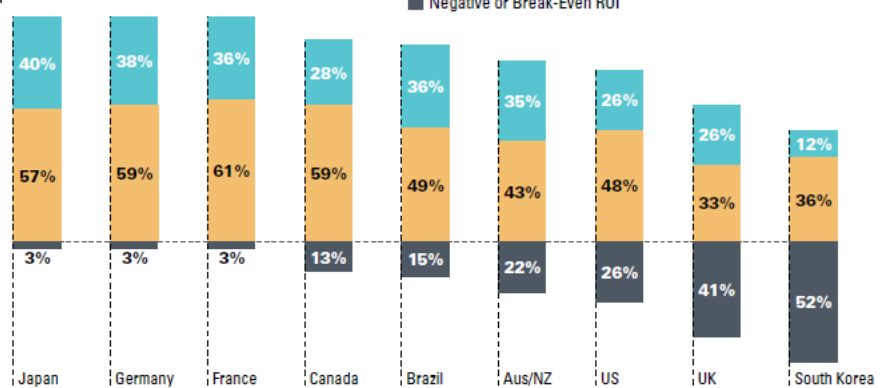


Building Information Modeling Revenue, World Markets: 2012-2020

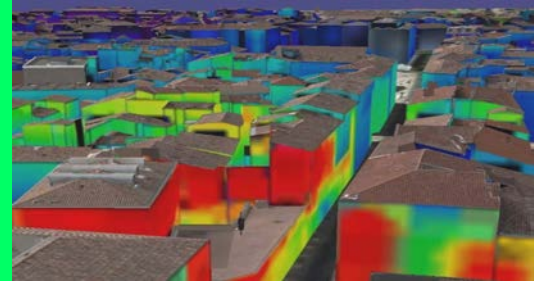
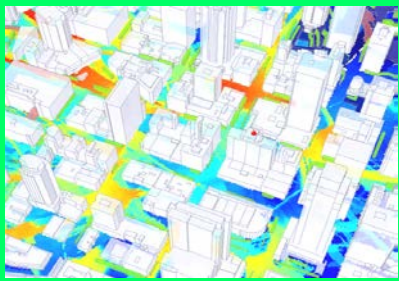
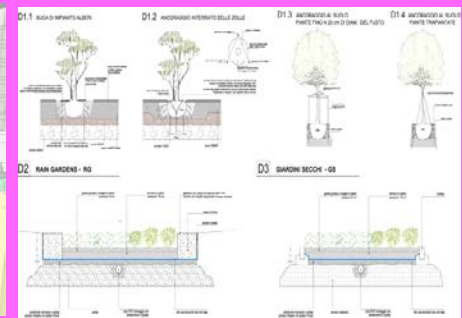


(Source: Pike Research)

Contractors' Perceived ROI on BIM (By Country)



Towards a 3D data visualization for all your needs using Ucin/roadRoad as main virtual environment



1 - POSIZIONE DELLA LINEA DI PASSAGGIO

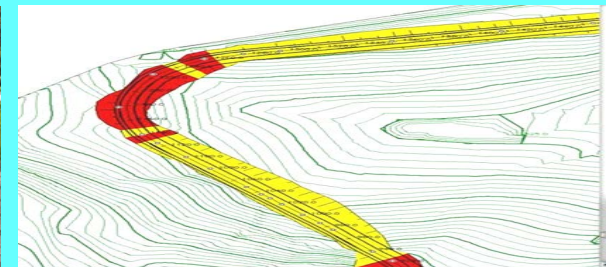
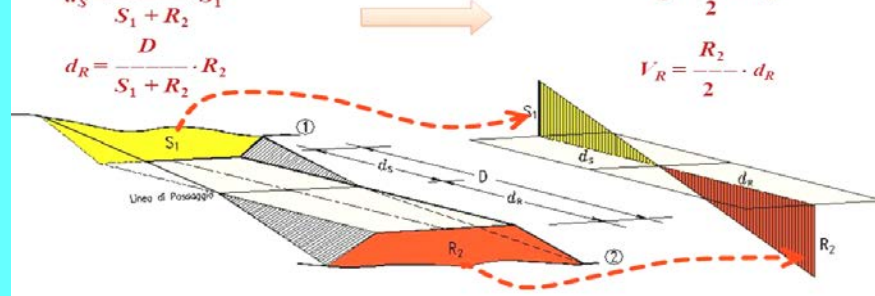
$$d_S = \frac{D}{S_1 + R_2} \cdot S_1$$

$$d_R = \frac{D}{S_1 + R_2} \cdot R_2$$

2 - CALCOLO DEI VOLUMI

$$V_S = \frac{S_1}{2} \cdot d_S$$

$$V_R = \frac{R_2}{2} \cdot d_R$$



1

REAL PRODUCT
FEATURES OF
REAL COMPANIES

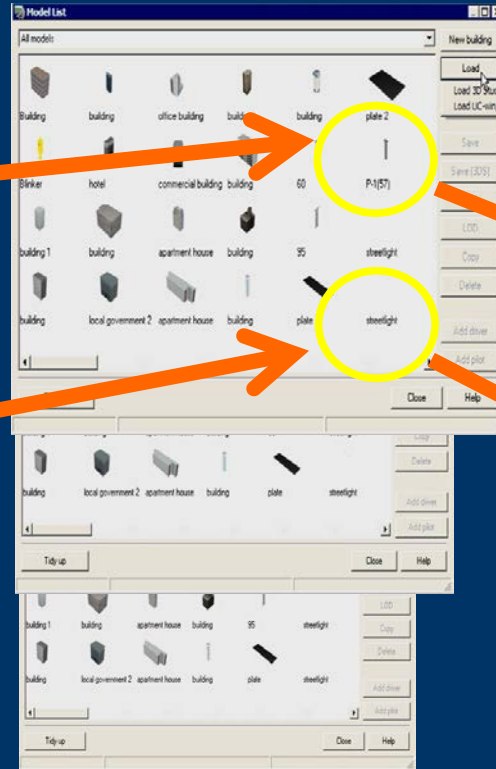
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```

2

UCWINROAD
PARAMETRIC
MODEL
DATA BASE



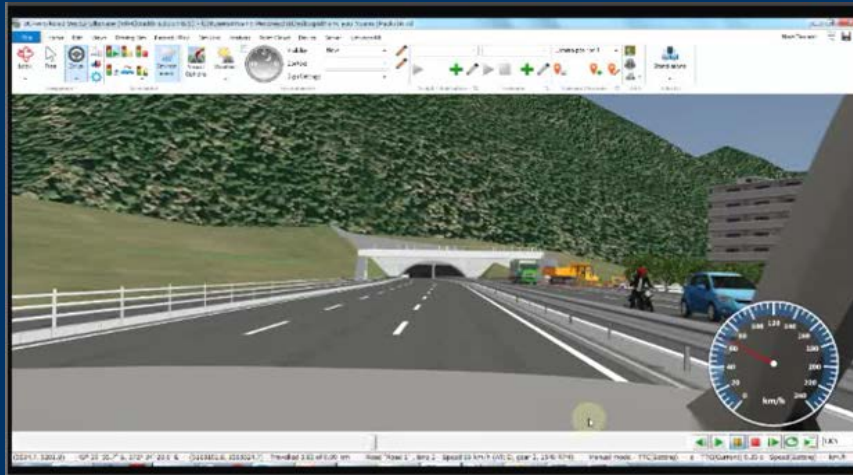
3

DESIGN
CONSTRUCTION
AND MANAGEMENT
THE ENVIRONMENT
ACCORDING THE BEST
POSSIBLE CHOICE



COMPARE MORE OPTIONS OF THE PROCESS - PRODUCT

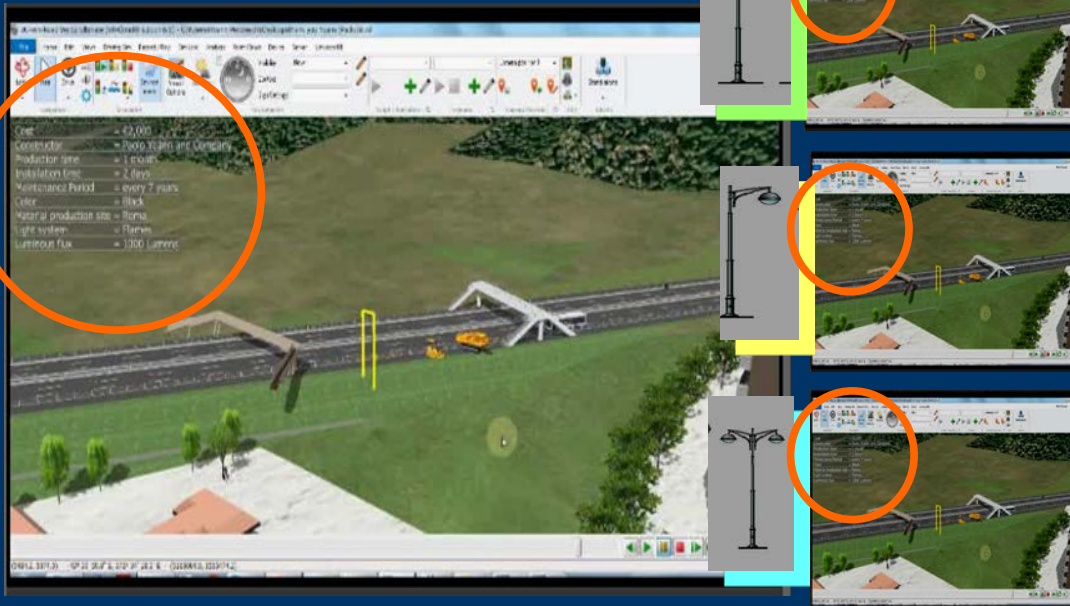
Design road & furniture



1) edit object attributes directly or find them in the library

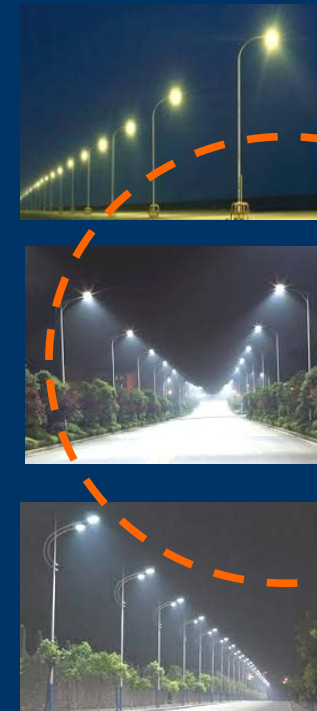


2) edit different scenarios with the objects

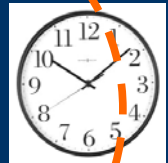


3)

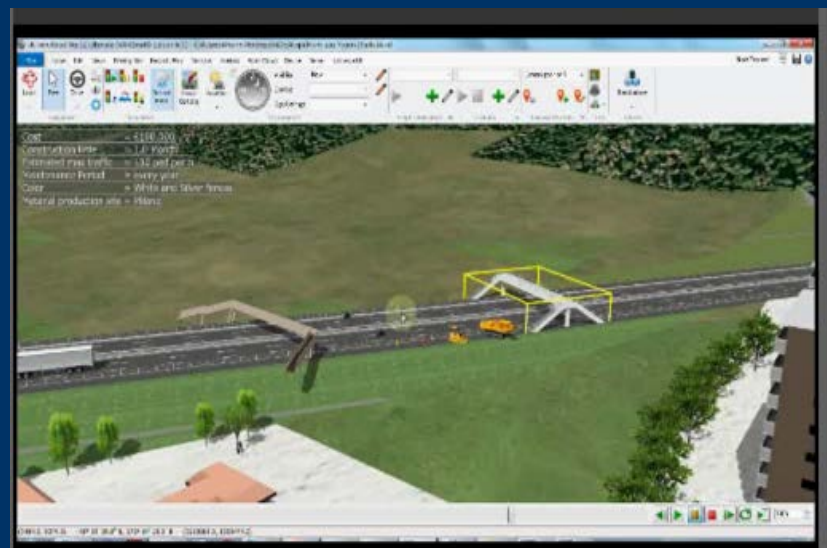
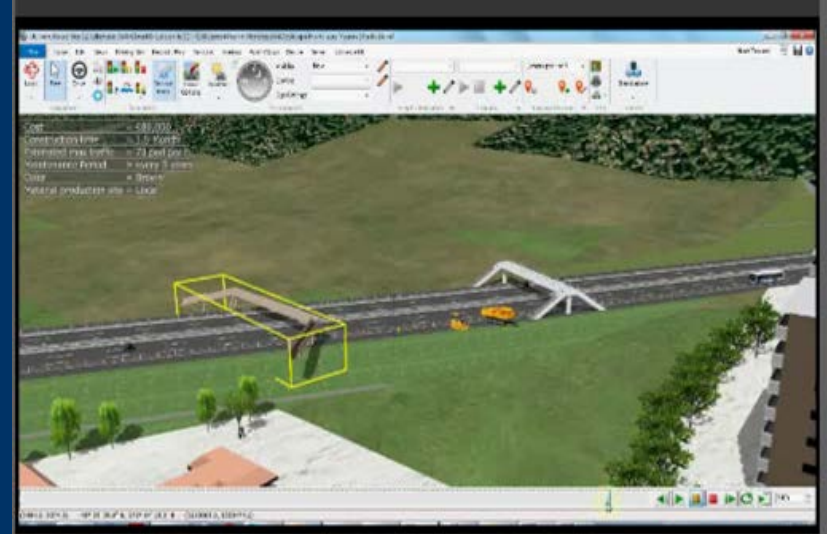
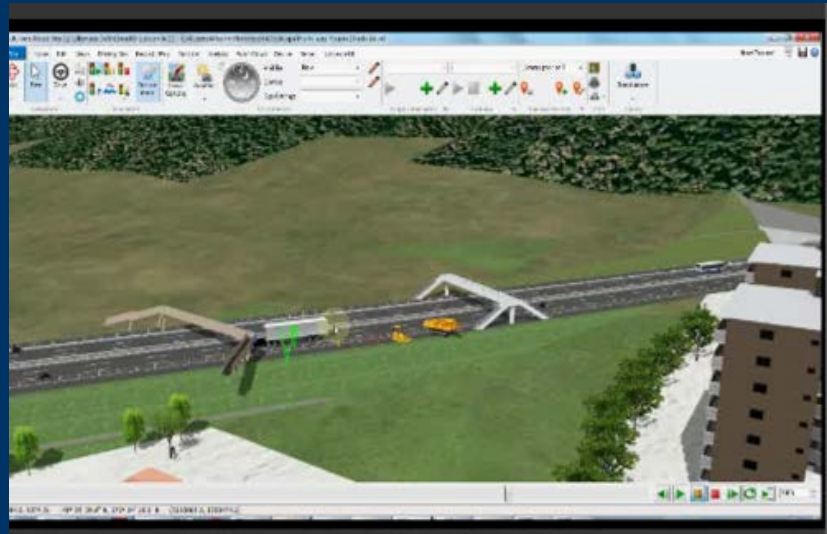
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Save
Time and
Cost



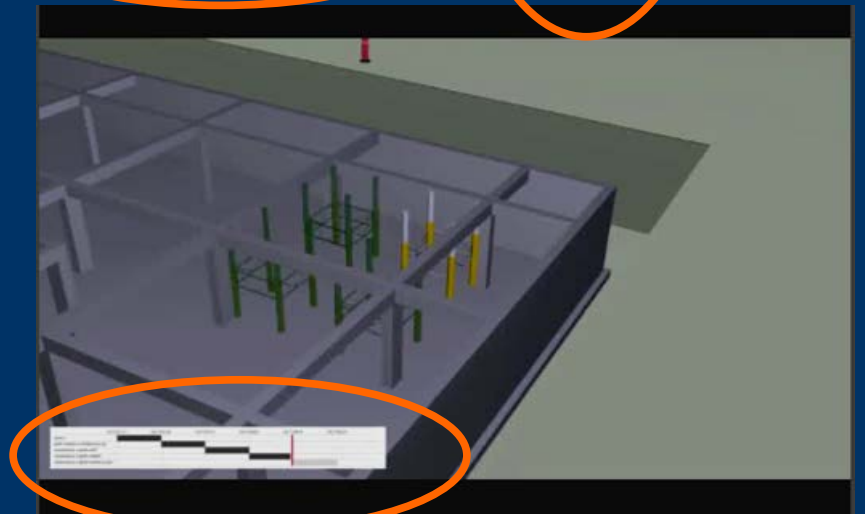
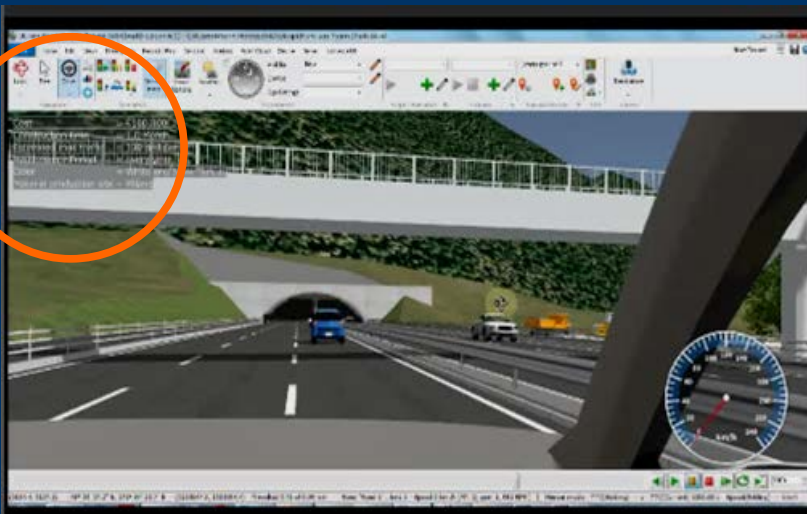
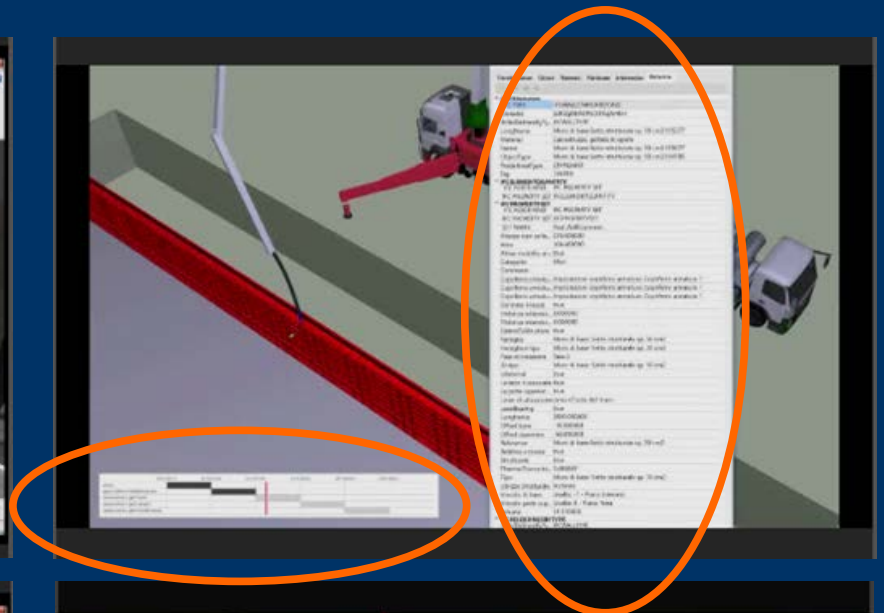
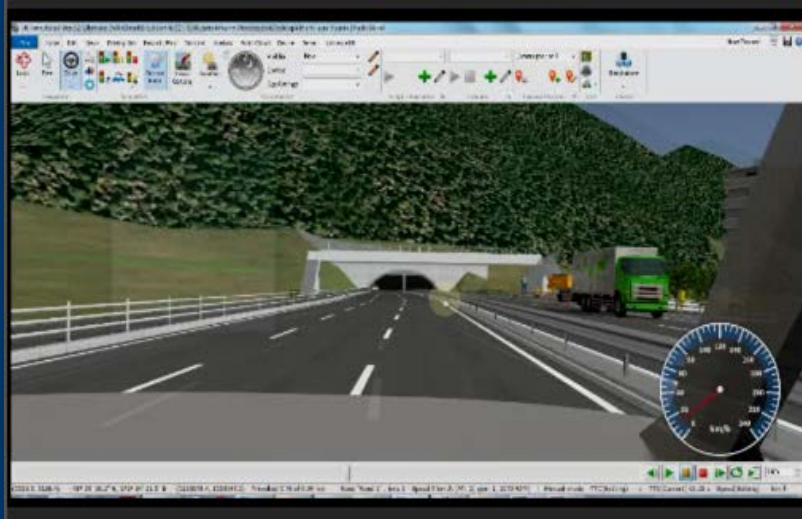
N objects with **M** features = **(N)** combinations to compare **cost** **4D**



Actor of the whole process can have dynamic interaction with the data of the object oriented using time and distance.

5D

And we can have facilities in order to edit a gant chart for construction time



3D OBJECT ORIENTED MEANS, ALSO, A PARAMETRIC FEATURES SYSTEM TO COMPARE WHOLE SCENARIOS

The image shows a screenshot of a 3D simulation software interface. The background is a 3D rendering of a highway interchange with a multi-story building in the background. A speedometer is visible in the bottom right corner. The interface includes a menu bar at the top, a toolbar, and a status bar at the bottom. Two orange boxes highlight specific data: one on the left showing project parameters and one at the bottom showing a scale bar. A large cyan circle is overlaid on the scene, containing five orange ovals with text labels: 'FEATURES', 'COST / TIME LINE', 'MICRO SIM', 'XML EDITOR', and 'QUERIES FACILITY'.

FEATURES

COST / TIME LINE

MICRO SIM

XML EDITOR

QUERIES FACILITY

Cost	= €100.000
Construction time	= 1.0 Month
Estimated max traffic	= 700 ped per
Maintenance Period	= every year
Color	= White and Silver
Material production site	= MIK...

Speedometer: 0 to 240 km/h

Status bar: (6091.4, 5137.3) | 49° 33' 07.2" N, 172° 36' 23.7" E | (5189147.3, 1559261.4) | Traveled 0.02 of 0.95 km | Road: Road 1, lane 1 | Speed 0 km/h | NT: 0, occ: 1, 682 RPM | Manual mode: TTC[Setting] | d: TTC[Current] 1000.00 | Speed[Setting]: km/h

SO, THIS IS MY RESEARCH ABOUT
HOW TO UPGRADE UC/win-Road ...

THANK YOU!



**You look like
who should
be upgraded too ...**