

# AlpCheck Project an overview

# Alpcheck Project main features

[www.alpcheck.eu](http://www.alpcheck.eu)

Total budget 4,7 mln € (2,37 mln € FESR)

Project start July 2006

Project end June 2008

10 Work Packages

13 Project Partners

4 Member States of Alpine Space involved

(Austria, Germany, Italy and Slovenia)

# Alpcheck Consortium

- **Veneto Region** - Regional Logistics Unit (Leader Partner)
- **Regione Autonoma Valle d'Aosta** - Assessorato Agricoltura, Risorse Naturali e Protezione Civile - Direzione Protezione Civile - Servizio Interventi Operativi
- **Carinthia Regional Government Administration** - Department 7 - Common Law and Infrastructure
- **EURAC** - European Academy - *Bolzano*
- **University of Maribor**, Faculty of Civil Engineering
- **Autorità Portuale di Venezia**
- **Fondazione SLALA** - Sistema Logistico del Nord Ovest d'Italia
- **IREALP** - Institute for Research on Ecology and Economy of the Alpine area - *Sondrio*
- **ICCR** - Interdisciplinary Centre for Comparative Research in the Social Sciences - *Vienna*
- **TCI Röhling** - Transport Consulting International - *Denzlingen*
- **OMEGA consult** - projektni management, d.o.o. - *Ljubljana*
- **Paradigma Unternehmensberatung GmbH** - *Vienna*
- **Centro Studi sui Sistemi di Trasporto** - *Turin*

# Alpcheck Objectives

- ✓ Initiating a process that should lead to the construction of an Information System for transport through Alpine Area
- ✓ Identifying, testing and evaluating different technologies for monitoring various typologies of road traffic

# Alpcheck Work Packages

WP1 - Transnational Project Preparation Activities

WP2 - Transnational Project Management

WP3 - Project Management

WP4 - Information and Publicity Activities

WP5 - State of the Art and User Requirements

WP6 - Informative system: design and implementation

WP7 - Traffic share modelisation and evaluation of environmental critical points

WP8 - Implementation of the pilot projects

WP9 - Demostration and Evaluation

WP10 - Analysis of the results

# **“Technical” Work Packages**

## ***main contents***

### **WP5 - State of the Art and User Requirements**

Definition of the information system requirements by a survey to road network operators and an overview on European Projects about mobility monitoring in Alpine Space

### **WP6 - Information System: design and implementation**

Implementation of a DataWareHouse containing traffic flow data from different existing sources and from AlpCheck Pilot Projects. Implementation of procedures for data homogenisation to make them comparable. To easier the access to the datawarehouse informations, an interface will be developed using Google Earth capabilities.

### **WP7 - Traffic share modelisation and evaluation of environmental critical points**

Pollution emission estimations for road traffic along some corridors crossing the alps and in environmentally weak areas in Alpine Space. Identification of more effective policies to mitigate environmental impacts of road traffic.

# **“Technical” Work Packages**

## ***main contents***

### **WP8 - Implementation of the Pilot Projects**

Implementation of 6 pilot projects finalised to test some traffic monitoring technologies and share data with the DataWareHouse

- ✓ Weight in Motion
- ✓ Route tracing via GPS/GPRS
- ✓ Traffic flows data transmission in Real Time
- ✓ Loading/unloading operations monitoring in Real Time
- ✓ Dangerous goods transport monitoring via OCR
- ✓ Testing radio-based monitoring technologies in particular weather and traffic conditions

### **WP9 - Demostration and Evaluation**

Assessment of project methodologies and activities through standard procedures definition


# AlpCheck Information System

**Development of the Information System was organized into succeeding phases:**

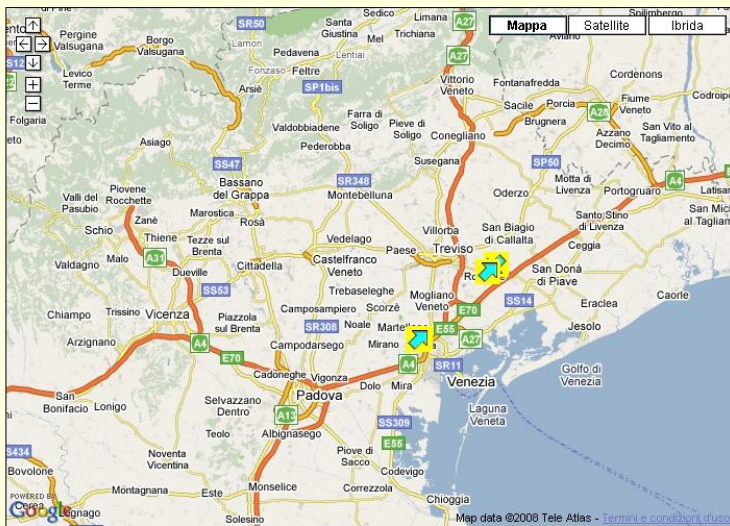
- ✓ Phase 1: evaluation and acquisition of the Data Warehouse platform - SuperStar
- ✓ Phase 2: collection and publication of data in the format made available by the various sources
- ✓ Phase 3: homogenization of the data collected, missing data estimation and coherence check
- ✓ Phase 4: development of web interface

## Information System: Web interface

http://dh.alpcheck.eu/guiweb/ - Microsoft Internet Explorer  
 File Modifica Visualizza Preferiti Strumenti ?  
 Indietro Indietro Cercare Preferiti Multimedia  
 Indirizzo http://dh.alpcheck.eu/guiweb/



**Traffic Counts(day profile)** | **Traffic Counts(year profile)** | **AADT** | **AADT per Origin/Destination**



Site: **VENEZIA MESTRE ENTRATA**  
 Campaign: **ASPI transiti ai caselli delle autostrade di confine**  
 Day Type: **workday**  
 Week Day: **Friday**  
 Vehicle type: **Any-Continue Selection**  
 Load Type: **not.spec.**

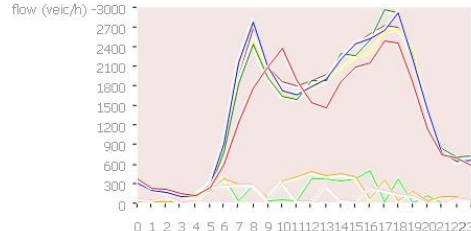
**result**

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result - Microsoft Internet Explorer  
 File Modifica Visualizza Preferiti Strumenti ?  
 Indietro Indietro Cercare Preferiti Multimedia  
 Indirizzo http://dh.alpcheck.eu/guiweb/risultati.htm?section\_ID=19&campaign\_ID=8&ref\_period\_daytype\_ID=1&ref\_period\_weekday\_ID=5&vehicle\_type=

**Traffic Counts(day profile)**

flow (veic/h) -3000



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

h

**SELECTION:** Site: VENEZIA MESTRE ENTRATA  
 Campaign: ASPI transiti ai caselli delle autostrade di confine  
 Day Type: workday  
 Week Day: Friday  
 Vehicle type: any  
 Load Type: not.spec.

**DIAGRAMS:** Total: 10 | Displayed: (1 to 8) | Previous | Next

Vehicle type=	light 2007-11-02	light 2007-11-03	light 2007-11-16	light 2007-11-23	light 2007-11-30	heavy 2007-11-02	heavy 2007-11-09	heavy 2007-11-16
Day=								
0:00-1:00	374	299	327	347	369	59	12	51
1:00-2:00	224	199	219	237	218	49	16	12
2:00-3:00	206	163	166	192	162	105	13	12
3:00-4:00	137	102	101	112	112	21	12	145
4:00-5:00	110	117	108	81	115	32	38	27
5:00-6:00	236	283	243	261	258	255	203	222
6:00-7:00	592	919	788	753	732	272	371	405
7:00-8:00	1236	2166	1827	1863	1943	294	295	49
8:00-9:00	1769	2782	2437	2497	2682	287	280	295
9:00-10:00	2089	2094	1914	2014	2085	60	76	54
10:00-11:00	2374	1736	1634	1679	1860	323	333	71
11:00-12:00	1873	1666	1580	1594	1789	38	397	52
12:00-13:00	1539	1786	1872	1770	1878	28	478	380
13:00-14:00	1465	1908	1876	1866	1968	278	413	391
14:00-15:00	1855	2206	2266	2070	2225	46	450	357
15:00-16:00	2082	2463	2264	2248	2427	38	400	389

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## Information System: Data Warehouse

http://85.18.31.171:8080/superweb/loadDatabase.do?db=vehicle - Microsoft Internet Explorer

File Modifica Visualizza Preferiti Strumenti ?

Indirizzo http://85.18.31.171:8080/superweb/loadDatabase.do?db=vehicle

**SuperWEB**  
by Space-Time Research

Save As Languages Logout Help Admin Tools

Databases Tables Fields

Counting  
VEHICLE

- ☐ Year of Vehicle Registration
- ☐ Year of Survey
- ☐ Record Version
- ☐ Type of Vehicle
- ☐ Traffic Relation
- ☐ Traffic Direction
- ☐ Record Type
- ☒ Point of Departure Road
- ☒ Point of Arrival Road
- ☐ Origin of Vehicle
- ☐ Mode of Transport On-Carriage
- ☐ Mode of Transport Pre-Carriage
- ☐ Mode of Transport
- ☐ Mode Change (Unloading)
- ☐ Mode Change (Loading)
- ☐ Further Alpine Crossing
- ☐ Type of Dangerous Goods
- ☐ Dangerous Goods Transported
- ☐ Load Commodity
- ☐ Type of Vehicle Body
- ☐ Border Crossing (Leaving)
- ☐ Border Crossing (Entering)
- ☐ Axle Configuration FR
- ☐ Axle Configuration EC
- ☐ Alpine Crossing
- ☐ Country of Survey

**Vehicle Records**

Counting: VEHICLE  
Fields: Point of Departure Road by Point of Arrival Road  
Layer: Filters:

Point of Arrival Road	Germany	Baden-Württemberg	Bavaria	Berlin	Brandenburg	Bremen	Hamburg	Hessen	Mecklenburg-Vorpommern	Niedersachsen	Nordrhein-Westfalen	Rheinland-Pfalz	Saarland	Sachsen	Sachsen-Anhalt	Schleswig-Holstein	Thüringen	Extra-Region	22 Unknown	Total
Point of Departure Road																				
Veneto	1	72	177	22	7	22	34	139	2	44	155	24	1	42	31	5	18	-	-	796
Verona	1	176	308	46	7	14	45	79	5	35	151	47	10	38	11	5	8	-	-	986
Vicenza	-	80	84	9	-	4	10	25	-	21	60	15	1	7	4	5	2	-	-	327
Belluno	-	3	11	-	-	-	-	2	-	-	8	-	-	3	-	-	1	-	-	28
Treviso	-	40	63	7	1	1	11	13	1	11	38	2	-	5	4	2	-	-	-	199
Venezia	-	58	76	7	1	5	11	11	1	10	26	8	4	3	5	2	2	-	-	230
Padova	1	58	70	8	2	6	10	16	1	10	59	15	3	15	4	-	1	-	-	279
Rovigo	-	8	4	2	-	-	1	1	-	2	7	4	-	-	1	2	-	-	-	32
<b>Total</b>	<b>3</b>	<b>495</b>	<b>793</b>	<b>101</b>	<b>18</b>	<b>52</b>	<b>122</b>	<b>286</b>	<b>10</b>	<b>133</b>	<b>504</b>	<b>115</b>	<b>19</b>	<b>113</b>	<b>60</b>	<b>21</b>	<b>32</b>	<b>-</b>	<b>-</b>	<b>2,877</b>

Add: Row Column Layer Filter  
Merge: Row Column Layer  
Name: Bayern Group  
☒ Auto Apply

Percentage: Reset Clear Table

Operazione completata

# Alpcheck is the first step toward an shared Infomobility System in the Alpine Area

The “*road map*” is in three steps:

- ✓ First step: implementing a standard Data Warehouse that collects and stores data from different sources and implement procedures to homogenise data as well
- ✓ Intermediate step: building a Decision Support System with advanced functionalities for the analysis of transport systems (e.g. four stages model)
- ✓ Final step: creating an infomobility system through the dynamic acquisition of traffic and modelling of real time data

**Thank you very much**

[www.alpcheck.eu](http://www.alpcheck.eu)

**Regione Veneto**

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**AlpCheck Conference**

***Castello di Marengo, 29<sup>th</sup> May 2008***