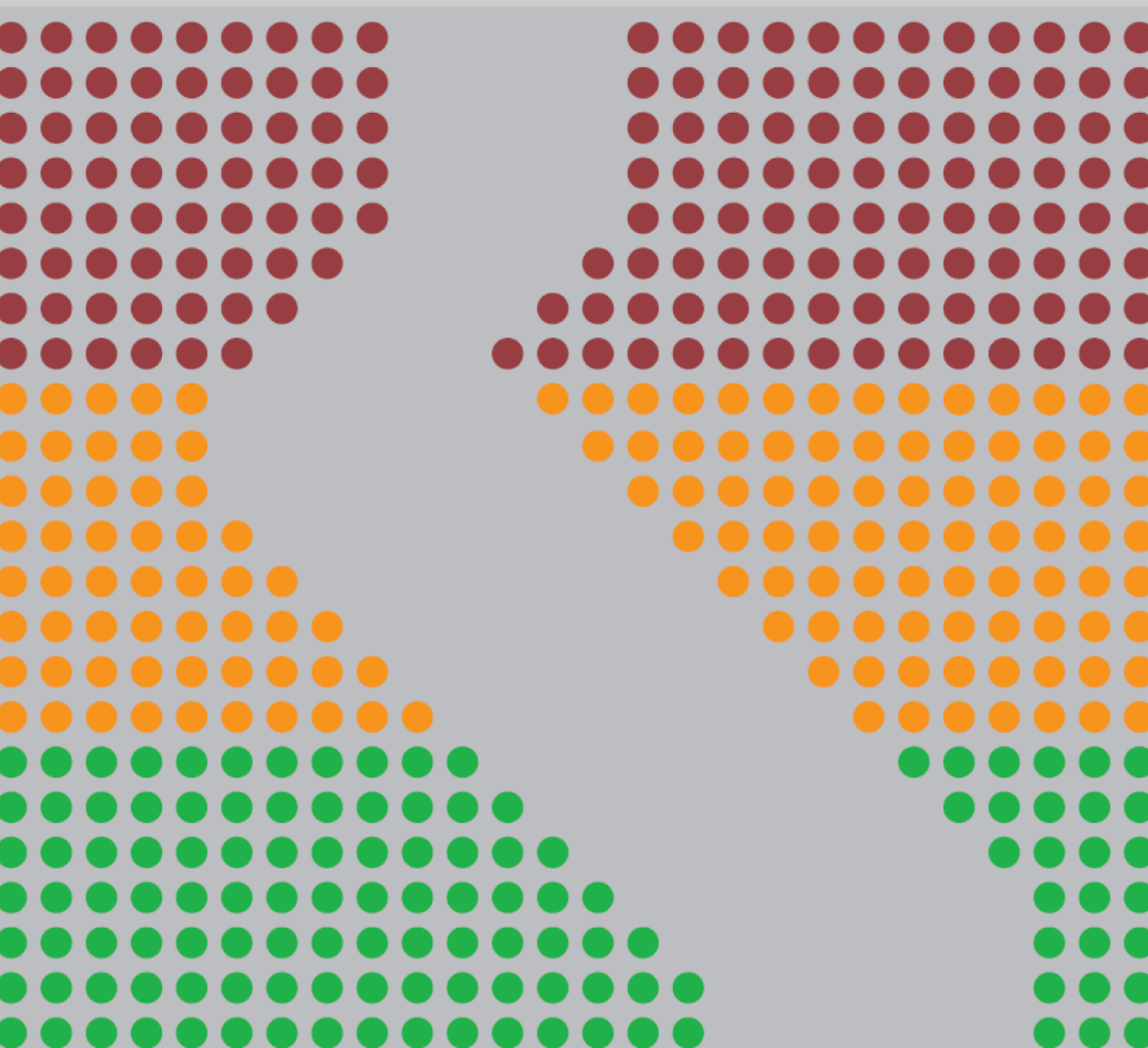


iMONITRAF! Annual Report 2013

The way ahead for the iMONITRAF! network



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INFRAS/Climonomics with inputs of iMONITRAF! partners

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The iMONITRAF! year 2013 at a glance

Background and objectives – Starting a new phase for the iMONITRAF! network

Environmental and social impacts from transalpine transport continue to grow in the sensitive Alpine regions. To tackle the common challenges, the regions Rhône-Alpes, the autonomous Province of Bolzano, the autonomous Region of Aosta Valley, the Piedmont Region, the Friuli-Venezia-Giulia Region, the Canton of Ticino, the Conference of Governments of Central Switzerland, the Land of Tyrol as well as the EURAC have joined forces in 2005. In the frame of the MONITRAF (2005-2008) and iMONITRAF! (2009-2012) projects, the regions have developed common solutions and measures.

As highlight of the iMONITRAF! project, representatives from seven regions have signed a common resolution and strategy in May 2012 which foresees the continuation of the common activities based on regional funding. For the period 2013-2016, they decided to establish a Coordination Point which will support the implementation of activities and milestones of the common strategy. As previous observer, the Italian Province of Trento has also signed the common resolution and joins the Coordination Point activities.

Monitoring update for the year 2012

To interpret traffic trends and their environmental effects along the iMONITRAF! corridors, the project team collects and documents relevant indicators, such as traffic flows, air quality and toll prices. iMONITRAF! does not run own measurement equipment but collects data from official surveys. The total traffic flows crossing the Alpine corridors remained rather stable in the period 2005–2012. At Fréjus, Mont Blanc, Gotthard and Brenner even the number of heavy vehicles in 2012 is close to the values in 2005 – with decrease and subsequent increase due to the economic crisis between 2008 and 2010 – whereas for Tarvisio significant reductions are observed. Most NO₂ concentrations along Brenner and Gotthard corridors exceed the national limits, while PM₁₀ concentrations in all corridors are below the EU limits but close above or below the Swiss and Austrian national limits. The values of the indicators are represented on a comprehensive WebGIS system (www.imonitraf.org → WEBGIS).

Update on Best Practices – Taking stock of achievements and new developments

The iMONITRAF! Best Practice Guide has provided an overview on regional and national measures and has been the basis for identifying common measures. As it is now nearly four years old, it was time for the team to take stock of achievements and revisions. Considering the recommendations of the common strategy, the following measures are particularly interesting:

- Limiting negative impacts: driving bans have been extended on several corridors, with the night driving ban extended to EURO 5 on the Brenner corridor and general driving bans extended in the Mont Bland tunnel. The law on noise remediation of railways has been revised in Switzerland and now foresees a complete ban of cast-iron brakes until 2020.
- Modal shift: With some minor adjustments of the HGV fee in Switzerland and the Brenner Maut, small steps have been taken to harmonise and improve pricing system. The ecotaxe poids lourds in France (implementation is pending) would be an important improvement. On the Italian side of the Brenner, an innovative cross-financing measure has been added to the best practice list. Regarding pull measures, the extension of the Gotthard rail corridor to a 4-meter profile has been analysed.

- Passenger transport: Several regional measures to improve public transport have been implemented in the last years. In Tyrol, the revised mobility program foresees a set of new measures. In South Tyrol, a synchronized public transport system is developed in the frame of the project “South Tyrol Takt”. Trento has taken several measures for sustainable tourism transport.

Some steps towards harmonisation and towards the implementation of common measures of the iMONITRAF! strategy have thus been taken. Further efforts are however necessary and the need for common policy making remains valid. For some measures, the regions however require support from the national and EU level. This is especially the case for a more ambitious pricing system, e.g. a Toll Plus system and the implementation of cap-and-trade instruments.

The European framework and windows of opportunity

The iMONITRAF! network has also taken stock of major activities on EU level. With the revised TEN-T guidelines, a new infrastructure policy has been implemented on EU level. The guidelines now focus on a core infrastructure network with nine priority corridors (four of these concern the Alpine Space). To limit negative environmental impacts of road and rail transport, the EU Commission currently reviews the policy framework on air quality and has launched a consultation on rail freight noise in which the iMONITRAF! network participated. Also, the new EURO VI emission standards for heavy trucks and buses came into effect at the beginning of 2013. One major window of opportunity for the iMONITRAF! network is the ongoing revision of the Eurovignette Directive which will offer windows of opportunity for lobbying towards a Toll Plus System.

As one major activity, the iMONITRAF! group has strengthened its networking activities. Improving the link to the Suivi de Zurich process was one focus: Representatives of iMONITRAF! had the opportunity to present iMONITRAF! results and ideas to the Steering Committee of the Suivi de Zurich and participated in the new working group EnvAlp. Further networking opportunities and activities have included discussions on the macroregional strategy, launching a resolution of the ARGE Alp which supports the iMONITRAF! strategy, participation in relevant working groups of the Alpine Convention, events of the Alpine Initiative, the European Region Tyrol–South Tyrol–Trentino and the Brenner Action Community. Regarding dissemination, the network has prepared an answer to the consultation on the future Alpine Space Programme (2014-2020).

Outlook 2014 – Launching new debates after consolidation phase

A great opportunity for political networking and for launching new topics and ideas will be the Transport Forum which is foreseen to be organised by Tyrol in early summer 2014. During the workshop in Bellinzona at the end of 2013, the partners brainstormed some potential topics for activities in 2014. The follow-up on common measures, especially the specification of a common pricing system and steering instruments as medium- and long-term measures will be one important milestone (e.g. with a regional statement on Toll Plus). Regarding passenger transport, possibilities will be discussed for linking activities with the RouteRank platform and the project AlpInfoNet which develop “intermodal service and ticketing platforms” as included in the strategy. Further, specific solutions for improvements of rail infrastructures and services could be developed by bringing together the relevant stakeholders (making use of results of the iMONITRAF! corridor workshops).

The Transport Forum 2014 in Innsbruck will also provide opportunities to strengthen the network with the Suivi de Zurich group as well as other organisations.

iMONITRAF! Aktivitäten im Jahr 2013 – Das Wichtigste in Kürze

Hintergrund und Ziele – neue Phase im iMONITRAF! Netzwerk

Die negativen Auswirkungen des transalpinen Personen- und Güterverkehrs steigen in den Alpenregionen stetig an. Um die gemeinsamen Herausforderungen anzugehen, haben sich die Regionen Rhône-Alpes, Friuli-Venezia-Giulia, Piemont, die autonome Region Aostatal, die autonome Provinz Bozen-Südtirol, der Kanton Tessin, das Land Tirol, die Zentralschweizer Regierungskonferenz und die EURAC 2005 zusammengeschlossen. Im Rahmen der Projekte MONITRAF (2005-2008) und iMONITRAF! (2009-2012) haben die Alpenregionen gemeinsame Lösungsansätze und Maßnahmen erarbeitet.

Als Höhepunkt des iMONITRAF! Projektes haben politische Vertreter aus sieben Regionen im Mai 2012 eine gemeinsame Resolution und Strategie unterzeichnet, die eine Fortsetzung der Zusammenarbeit vorsieht. Die Finanzierung der Aktivitäten soll dabei von den Regionen selbst übernommen werden. Für den Zeitrahmen von 2013 und 2016 wurde daher entschieden, einen gemeinsamen „Coordination Point“ einzurichten, der die Umsetzung der gemeinsamen Aktivitäten und die Erreichung der Meilensteine unterstützt. Für die neue Phase ist auch die Provinz Trento – bisher im Beobachter-Status – dem Coordination Point beigetreten.

Ergebnisse des Monitorings 2012

Um die Verkehrsentwicklung und deren Umweltauswirkungen entlang der iMONITRAF!-Korridore zu interpretieren, hat das Projektteam Verkehrszahlen, Luftqualität-Messungen und Mautsätze gesammelt und dokumentiert. iMONITRAF! führt keine eigene Datenerhebung durch, sondern arbeitet mit öffentlichen und publizierten Daten. Das Verkehrsvolumen auf den Alpenkorridoren blieb im Zeitraum 2005-2012 weitgehend stabil. Auf den Übergängen Fréjus, Mont Blanc, Gotthard und Brenner ist die Zahl der schweren Güterfahrzeuge heute etwa auf dem Niveau von 2005. Vor der Wirtschaftskrise 2008-2010 stieg sie noch an, nahm aber in der Krise wieder ab. Beim Tarvisio verharrt sie auf einem Niveau unterhalb der Werte von 2005. Die NO₂-Konzentrationen am Brenner und Gotthard überschritten die nationalen Grenzwerte, die PM₁₀-Konzentration lagen zwar an allen Korridoren unterhalb der EU-Grenzwerte, aber nur knapp unter, beziehungsweise über den schweizerischen und österreichischen Grenzwerten. Alle Monitoring-Daten können über das iMONITRAF! WebGIS abgerufen und visualisiert werden (www.imonitraf.org → WebGIS).

Best Practices – ein Update zu Erfolgen und neuen Entwicklungen

Der iMONITRAF! „Best Practice Guide“ stellte eine Übersicht der regionalen und nationalen Maßnahmen dar und bildete damit die Basis für die Identifizierung gemeinsamer Maßnahmen. Die Übersicht ist jedoch nun bereits vier Jahre alt, so dass eine Bestandsaufnahme zu Erfolgen und neuen Entwicklungen dringend an der Zeit war. Im Hinblick auf die Empfehlungen der gemeinsamen Strategie von 2012 erscheinen insbesondere die folgenden Maßnahmen aus der neuen Bestandsaufnahme 2013 interessant:

- Limitierung der negativen Auswirkungen: Fahrverbote wurden an mehreren Korridoren ausgeweitet, wobei das Nachtfahrverbot am Brenner auf EURO 5 Fahrzeuge und das generelle Fahrverbot für den Mont-Blanc-Tunnel auf weitere Emissionsklassen ausgeweitet wurden. Das Gesetz zur Lärmsanierung der Eisenbahnen in der Schweiz wurde überarbeitet und enthält nun ein vollständiges Verbot von Gusseisen-Bremssystemen bis 2020.
- Verkehrsverlagerungen: Mit geringen Anpassungen der leistungsabhängigen Schwerverkehrsabgabe in der Schweiz und der Brenner-Maut wurden kleine Schritte zur Harmonisie-

rung und Verbesserung der Mautsysteme unternommen. Die „ecotaxe poids lourds“ in Frankreich, deren Einführung noch bevorsteht, wäre ein weiterer wichtiger Verbesserungsschritt. Auf der italienischen Seite des Brenners wurde eine innovative Querfinanzierungsmaßnahme zur Best-Practice-Liste hinzugefügt. Zu den schienenseitigen Maßnahmen wurde die Erweiterung auf einen 4-Meter-Korridor am Gotthard analysiert.

- Personenverkehr: In den letzten Jahren wurden verschiedene regionale Maßnahmen zur Verbesserung des öffentlichen Verkehrs eingeführt. In Tirol schreibt das überarbeitete Mobilitätsprogramm ein neues Maßnahmen-Paket vor. In Südtirol wurde ein Taktfahrplan und verbessertes Angebot im Rahmen des Projekts „Südtirol Takt“ entwickelt. Außerdem hat Trento verschiedene Maßnahmen für nachhaltige Mobilität im Bereich Tourismus ergriffen.

Es sind also mehrere Schritte in Richtung Harmonisierung und Umsetzung der gemeinsamen Maßnahmen der iMONITRAF! Strategie zu verzeichnen. Weitere Anstrengungen sind jedoch notwendig und die politische Zusammenarbeit ist nach wie vor von hoher Bedeutung. Für manche Maßnahmen ist Unterstützung von nationaler oder sogar von EU-Ebene notwendig, für die Etablierung eines ambitionierten Mautsystems, wie zum Beispiel dem Toll Plus System, oder eines Cap-and-Trade Instruments.

Der Europäische Rahmen und „windows of opportunity“

Das iMONITRAF! Netzwerk hat die laufenden Aktivitäten in den Bereichen Verkehr und Umwelt auf EU-Ebene beobachtet. Mit der überarbeiteten TEN-T-Richtlinie wurde eine neue EU-Infrastrukturpolitik eingeführt. Die Richtlinie setzt ihren Fokus dabei nun auf ein Kern-Infrastrukturnetzwerk entlang neun prioritärer Korridore (vier davon betreffen die Alpenregion). Um die negativen Auswirkungen von Straßen- und Schienenverkehr zu reduzieren, überprüft die EU-Kommission ihre Luftqualitätspolitik und führt Konsultationen zur Reduzierung des Schienenlärms durch. An dieser Konsultation hat das iMONITRAF! Netzwerk teilgenommen. Ein „window of opportunity“ ergibt sich aus der anstehenden Überarbeitung der Wegekostenrichtlinie, in der sich das Netzwerk für ein Toll-Plus-System einsetzen wird.

Ein weiterer Fokus der iMONITRAF! Aktivitäten lag 2013 auf der Stärkung der Netzwerke. Die engere Zusammenarbeit mit dem Suivi-de-Zurich-Prozess stand dabei im Fokus: Vertreter von iMONITRAF! konnten ihre Ergebnisse und Ideen dem Suivi-de-Zurich-Leitorgan präsentieren und in der neuen Arbeitsgruppe „EnvAlp“ mitarbeiten. Weitere Netzwerkaktivitäten umfassten Diskussionen zur Entwicklung einer makroregionalen Strategie für den Alpenraum, den Anstoß einer ARGE Alp-Resolution als Unterstützung der iMONITRAF! Strategie, die Teilnahme an relevanten Arbeitsgruppen der Alpenkonvention, an Events der Alpen-Initiative sowie die Beteiligung an den Arbeiten der Europaregion Tirol-Südtirol-Trentino und der Brenner-Aktions-Gemeinschaft. Zur Verbreitung der iMONITRAF! Ideen hat das Netzwerk an der Konsultation zum zukünftigen Alpine Space Programme (2014-2020) teilgenommen.

Ausblick 2014 – Neue Themen anstoßen, Konsolidierungsphase abschließen

Eine gute Möglichkeit zur Stärkung des politischen Netzwerks und zum Anstoßen neuer Themen ist das iMONITRAF! Transport Forum, das von Tirol im Sommer 2014 organisiert wird. Während eines Workshops in Bellinzona Ende 2013 haben die iMONITRAF! Partner weitere Themen und Ideen für die Aktivitäten in 2014 gesammelt. Eine Fortsetzung der gemeinsamen Maßnahmen, insbesondere zur Konkretisierung eines gemeinsamen Mautsystems (beispielsweise mit einem Positionspapier zu Toll Plus) und Steuerungsinstrumenten als mittel- und langfristige Maßnahmen stellen dabei wichtige Meilensteine dar. Im Hinblick auf den Personenverkehr werden Möglichkeiten zur Vernetzung mit der „RouteRank“-Plattform und auch dem Projekt „AlpInfoNet“ diskutiert, welche intermodale Service- und Ticketplattformen entwickeln. Zu-

dem sollen konkrete Lösungsansätze zur Stärkung des Schienenverkehrs durch Zusammenbringen der relevanten Akteure vorangetrieben werden (in Anlehnung an die früher durchgeführten iMONITRAF! Korridor-Workshops). Auch dabei bietet das Transportforum 2014 in Innsbruck Möglichkeiten, das Netzwerk mit der Suivi-de-Zurich-Gruppe und anderen Organisationen zu stärken.

iMONITRAF! en 2013 – Résumé

Contexte et objectifs - Une nouvelle phase de travail pour le réseau iMONITRAF!

Les impacts environnementaux et sociaux du transport transalpin continuent de s'accroître dans les régions sensibles de l'arc alpin. Pour répondre à ces défis et développer des solutions et des mesures communes, les Régions Rhône-Alpes, Vallée d'Aoste, Piémont et Frioul-Vénétie-Julienne, ainsi que la Province autonome de Bolzano, le Canton du Tessin, la Conférence des Gouvernements de Suisse Centrale, le Land du Tyrol et l'EURAC ont unis leurs forces dès 2005 dans le cadre des projets MONITRAF (2005-2008) et iMONITRAF! (2009-2012).

Le succès du projet iMONITRAF! s'est traduit par la signature en mai 2012, par les représentants de sept régions, d'une résolution commune et d'une stratégie qui prévoient la poursuite des activités partenariales sur la base de financements régionaux. Pour la période 2013-2016, ces régions ont décidé d'établir un « point de coordination » qui suivra l'avancement des travaux et soutiendra la mise en œuvre des principales orientations de la stratégie. Observatrice sur la précédente période, la Province italienne de Trente a récemment signé la résolution commune et rejoint les activités du point de coordination.

Actualisation des données d'observation pour l'année 2012

Pour analyser les tendances de trafic et leurs effets environnementaux le long des corridors iMONITRAF!, l'équipe projet renseigne un certain nombre d'indicateurs, relatifs notamment aux flux de trafic, à la qualité de l'air ou au montant des péages. Le réseau iMONITRAF! ne dispose pas en propre d'équipements de mesure, mais collecte les données directement auprès des gestionnaires d'infrastructure et synthétise les informations issues d'observatoires institutionnels. Les flux de trafic à travers les Alpes sont globalement restés stables sur la période 2005-2012. Sur les corridors du Fréjus, du Mont Blanc, du Gothard et du Brenner, le nombre de poids lourds en 2012 est assez proche des valeurs observées en 2005, avec un phénomène de nette diminution puis de reprise des trafics entre 2008 et 2010 du fait de la crise économique. On observe en revanche une baisse significative des flux de marchandises sur le corridor du Tarvisio. Les concentrations de NO₂ le long du Brenner et du Gothard dépassent pour la plupart les valeurs limites nationales, tandis que les concentrations en PM10 sont au-dessous des valeurs limites fixées par l'Union européenne, bien que proches des valeurs limites suisses et autrichiennes. L'ensemble des données fait l'objet d'un traitement cartographique, grâce au système WebGIS mis en place (www.imonitraf.org → WEBGIS).

Mise à jour du guide des bonnes pratiques – Approfondissement des mesures existantes et nouveaux dispositifs

Le guide des bonnes pratiques réalisé dans le cadre du projet iMONITRAF! offre une vue d'ensemble sur les mesures de report modal les plus exemplaires aux niveaux régional et national ; il a également permis d'identifier un certain nombre de dispositifs pertinents pour l'ensemble de l'arc alpin. Quatre ans plus tard, il convient de faire le point sur les avancées et éventuels développements. Il est particulièrement intéressant de noter que plusieurs dispositifs nationaux par-

icipent directement de la mise en œuvre des recommandations formulées dans la stratégie commune :

- Pour limiter les effets néfastes du trafic routier de marchandises, la réglementation a ainsi été renforcée sur plusieurs corridors, avec par exemples l'extension de l'interdiction du trafic nocturne aux véhicules de classe EURO 5 au Brenner et l'extension au Mont Blanc des interdictions de circuler pour les véhicules les plus polluants. En Suisse, la loi contre les nuisances sonores dues au transport ferroviaire a également été révisée: elle prévoit désormais, d'ici 2020, une interdiction complète de certains dispositifs de freinage particulièrement bruyants.
- En matière de transfert modal, quelques ajustements – somme toute assez mineurs – ont été constatés sur la redevance poids lourds liée aux prestations en Suisse ainsi que sur la Brenner Maut en Autriche, qui permettent de progresser un peu vers une harmonisation et une amélioration du système tarifaire. L'écotaxe poids lourds en France (dont l'application a été suspendue) constituerait sans doute une évolution majeure dans le paysage alpin. En complément, des mesures de financements croisés novatrices ont été mises en place sur le versant italien du Brenner et les discussions avancent pour une mise au gabarit 4m de l'ensemble du corridor ferroviaire du Gothard.
- En parallèle, d'importantes politiques régionales en faveur des transports de voyageurs ont été mises en œuvre au cours des dernières années. Au Tyrol, le programme de mobilité a été révisé et prévoit un ensemble de nouvelles mesures. Dans le Sud Tyrol, un système de transport public synchronisé est développé dans le cadre du projet "Sud Tyrol Takt". Dans le Trento, d'importants efforts sont faits pour des déplacements touristiques plus durables.

Quelques étapes ont ainsi été franchies pour une harmonisation et une mise en œuvre des mesures communes préconisées au sein de la stratégie iMONITRAF!. Il reste toutefois encore beaucoup à accomplir, et la mise en cohérence des politiques de transport sur l'ensemble du périmètre alpin demeure une nécessité. Le soutien des Etats et de l'Union européenne est souvent indispensable, notamment pour des systèmes tarifaires plus incitatifs, tels que le surpéage ou les instruments de plafonnement et d'échange.

Le cadre européen et les opportunités

Le réseau iMONITRAF! a aussi examiné les avancées au niveau européen. Avec la révision des orientations relatives au RTE-T, une nouvelle politique d'infrastructure se met en effet en place à l'échelle de l'Union Européenne, qui se concentre sur un réseau central composé de 9 corridors prioritaires (dont 4 concernent l'espace alpin). Pour limiter les nuisances environnementales du transport routier et ferroviaire, la Commission européenne passe actuellement en revue le cadre législatif sur la qualité de l'air et a lancé une consultation sur le bruit lié au fret ferroviaire, consultation à laquelle le réseau iMONITRAF! a participé. De plus, les nouveaux standards d'émission EURO VI pour les camions et les bus sont entrés en vigueur début 2013. La principale opportunité pour le réseau iMONITRAF! réside désormais dans la révision en cours de la Directive Eurovignette, qui doit permettre de faire pression pour un système généralisé de surpéage (« Toll plus system »).

En parallèle, l'équipe iMONITRAF! a renforcé ses liens avec d'autres réseaux. Elle a ainsi eu l'occasion de présenter les résultats du projet au Comité de pilotage du Suivi de Zurich, et participera à l'avenir au groupe de travail EnvAlp. Elle participe également aux discussions en cours pour une stratégie macrorégionale alpine, à certains groupes de travail de la Convention alpine et s'associe à certains événements portés par l'Initiative des Alpes. Des relations étroites sont en outre entretenues avec le réseau ARGE Alp, qui a récemment adopté une résolution de soutien à la stratégie iMONITRAF!, ou encore avec l'Eurorégion Tyrol - Sud Tyrol - Trentino et la

Comunità d'azione per il Brennero. La rete iMONITRAF! ha infine contribuito alla consultazione sull'avvenire del Programma Spazio Alpino (2014-2020), al fine di pesare sulle orientazioni a venire.

Le prospettive nel 2014 - Lanciamento di nuovi dibattiti dopo una fase di consolidamento

Il prossimo Trasporto Forum iMONITRAF!, che si terrà in Tirolo all'inizio dell'estate 2014, costituirà il prossimo appuntamento politico. Ciò sarà anche un'occasione privilegiata per lanciare e discutere di argomenti nuovi, evocati specialmente durante il Comitato tecnico organizzato a Bellinzona alla fine del 2013. La prosecuzione di misure comuni, più specialmente in materia di sistemi tariffari e di dispositivi di contingenza a medio-lungo termine, sarà l'oggetto di un'attenzione specifica (con per esempio una dichiarazione interregionale sul sorpasso). Quanto al trasporto di viaggiatori, dei legami saranno da stabilire con la piattaforma RouteRank e il progetto AlpInfoNet, che sviluppano dei sistemi d'informazione e di biglietteria intermodali, all'instar di ciò che è preconizzato nella strategia iMONITRAF!. Altre azioni potranno essere impegnate al fine di migliorare le infrastrutture e servizi di trasporto ferroviario, che riuniranno l'insieme delle parti interessate coinvolte (le piattaforme di corridoio costituiscono a questo riguardo un esempio del quale i partner potranno ispirarsi).

Il Trasporto Forum 2014 a Innsbruck sarà infine l'occasione di rafforzare ancora i nostri legami con il Gruppo di Zurigo e le reti menzionate più sopra.

iMONITRAF! nel 2013: L'essenziale in breve

Background e obiettivi – Inaugurando una nuova fase per la rete iMONITRAF!

Nelle ecologicamente delicate regioni alpine, gli impatti ambientali e sociali del trasporto transalpino continuano a crescere. Per affrontare la comune sfida, nel 2005 la regione Rhône-Alpes, la Provincia autonoma di Bolzano Alto Adige, la Regione Autonoma Valle d'Aosta, la Regione Piemonte, la Regione Autonoma Friuli Venezia Giulia, il Canton Ticino, la Conferenza dei governi della Svizzera centrale, il Land del Tirolo e l'EURAC hanno unito le forze e hanno sviluppato soluzioni e provvedimenti comuni, concretizzandosi nei progetti MONITRAF (2005-2008) ed iMONITRAF! (2009-2012).

Come punto saliente del progetto iMONITRAF!, i rappresentanti delle sette regioni hanno siglato una strategia e un accordo condivisi nel maggio 2012, i quali prevedono il proseguimento delle attività comuni sulla base di un finanziamento regionale. Per il periodo 2013-2016 è stato istituito un Punto di Coordinamento, con lo scopo di facilitare la realizzazione di attività nell'ambito della strategia comune. Anche la Provincia Autonoma di Trento, precedentemente coinvolta nel progetto come osservatore, ha infine siglato le risoluzioni comuni, e partecipa così alle attività del Punto di Coordinamento.

Osservando gli sviluppi dell'anno 2012

Per interpretare le tendenze del traffico e i suoi effetti sull'ambiente lungo i corridoi oggetto di analisi di iMONITRAF!, il team di progetto raccoglie documenti e indicatori rilevanti, come flussi di traffico, qualità dell'aria e prezzo dei pedaggi. iMONITRAF! non effettua misurazioni sul campo con strumenti di rilevazione propri, ma basa le proprie analisi sui risultati di indagini ufficiali. I flussi di traffico attraverso le Alpi si sono rivelati piuttosto stabili nel periodo 2005-2012. Fréjus, Monte Bianco, Gottardo e Brennero hanno persino visto il numero di veicoli pesanti nel 2012

avvicinarsi molto a quello del 2005, con un decremento dovuto alla crisi economica fra il 2008 e il 2010, seguito da un successivo incremento. Il Tarvisio ha invece mostrato riduzioni significative. La concentrazione di NO₂ lungo il Brennero e il Gottardo eccede i limiti nazionali, mentre le PM₁₀, pur essendo inferiori ai limiti di concentrazione UE, si avvicinano o sfiorano quelli nazionali di Svizzera ed Austria. I valori degli indicatori sono rappresentati in un sistema WebGIS complessivo (www.imonitraf.org → WEBGIS).

Aggiornamenti sulle Buone Pratiche – Raccogliendo risultati e nuovi sviluppi

La Guida alle Buone Pratiche ha fornito una panoramica sulle misure nazionali e regionali e ha costituito la base per l'identificazione di provvedimenti condivisi. Dopo quasi quattro anni, le buone pratiche sono state sottoposte ad una valutazione degli obiettivi raggiunti e delle modifiche, tenendo conto delle raccomandazioni della strategia comune, risultano di particolare interesse le seguenti misure:

- Limitazioni degli impatti negativi: i divieti di circolazione sono stati estesi a più corridoi, come il divieto di circolazione notturno esteso ai veicoli EURO 5 lungo il corridoio del Brennero e il generale divieto di circolazione esteso al tunnel del Monte Bianco. La legge federale svizzera sul risanamento fonico delle ferrovie è stata rivista e ora prevede il divieto di carri dotati di ceppi in ghisia fino al 2020.
- Intermodalità: con alcuni minori aggiustamenti del pedaggio HGV in Svizzera e del pedaggio sul Brennero, sono stati fatti piccoli passi per armonizzare e migliorare la politica dei prezzi. La "*ecotaxe poids lourds*" in Francia (in corso di realizzazione) costituirebbe un importante passo avanti in tal senso. Sul versante italiano del Brennero, un'innovativa misura di finanziamenti incrociati è stata aggiunta alla lista delle migliori pratiche. A proposito delle misure di incentivo all'utilizzo del trasporto sostenibile, è stato analizzato l'ipotetica realizzazione di un corridoio ferroviario da 4 metri lungo l'asse del San Gottardo.
- Trasporto passeggeri: negli ultimi anni sono state messe in atto alcune misure regionali per il miglioramento del trasporto pubblico. In Tirolo, il programma di mobilità aggiornato prevede una serie di nuove misure. Nella Provincia Autonoma di Bolzano-Alto Adige è stato introdotto un sistema cadenzato di trasporto pubblico all'interno del progetto "Cadenzamento Alto Adige". La Provincia Autonoma di Trento ha adottato diverse misure finalizzate a un trasporto turistico sostenibile.

Sono stati quindi fatti diversi passi verso l'armonizzazione e la realizzazione delle misure comuni previste dalla strategia iMONITRAF! Sono comunque necessari ulteriori sforzi, e la necessità di sviluppare una politica condivisa rimane chiara. Per alcune misure, le regioni necessitano di un sostegno nazionale e europeo. Questo è particolarmente vero nel caso delle politiche sui prezzi più ambiziose, come ad esempio un sistema *Toll Plus* e l'implementazione di strumenti di *cap-and-trade*.

Il contesto europeo e le opportunità

La rete iMONITRAF! ha anche collezionato una serie di importanti attività a livello europeo. Grazie alla revisione delle linee guida TEN-T, a livello comunitario è stata adottata una nuova politica relativa alle infrastrutture. Le direttive adesso si concentrano su un nucleo di nove corridoi prioritari, di cui quattro interessano lo spazio alpino. Per limitare gli impatti negativi sull'ambiente del trasporto su gomma e ferroviario, la commissione Europea ha recentemente rivisto il proprio inquadramento legislativo relativo alla qualità dell'aria, e ha avviato una consultazione sulla rumorosità del trasporto merci ferroviario, alla quale la rete iMONITRAF! ha partecipato. All'inizio del 2013 il nuovo standard di emissione EURO 6 per camion pesanti e bus è di-

ventato effettivo e in atto la revisione della direttiva sulla Eurovignette: questa sarà una grande opportunità per la rete iMONITRAF! di spingere verso un sistema *Toll Plus*.

Il gruppo iMONITRAF! ha inserito fra le sue priorità le attività di *networking*. Migliorare il collegamento con i Seguiti di Zurigo (*Suivi de Zurich*) era un cardine fondamentale: i rappresentanti di iMONITRAF! avevano l'opportunità di presentare i risultati e le idee di iMONITRAF! al comitato di direzione e hanno partecipato al nuovo working group EnvAlp. Ulteriori attività ed opportunità di *networking* sono state date dalla discussione sulla strategia macroregionale, tramite la promozione di una risoluzione di ARGE Alp che sostiene la linea guida di iMONITRAF!, e la partecipazione a numerosi gruppi di lavoro della Convenzione delle Alpi ed a eventi dell'Iniziativa delle Alpi, dell'Euregio Tirolo Alto Adige Trentino e della Comunità d'azione ferrovia del Brennero. In termini di diffusione, il network ha preparato una risposta alla consultazione sul futuro Programma Spazio Alpino (2014-2020).

Prospettive per il 2014 – la proposta di nuovi dibattiti dopo una fase di consolidamento

Il Transport Forum, che sarà organizzato dal Tirolo nel 2014, costituirà una grande opportunità per il network politico e per la proposta di nuovi temi e idee. Durante il workshop di Bellinzona, tenutosi alla fine del 2013, i partner hanno proposto alcuni temi potenzialmente interessanti per il 2014. I successivi provvedimenti, in particolare la pianificazione di un sistema di prezzi unificato e di misure a medio e breve termine, costituiranno delle tappe importanti (ad esempio con un parere regionale su *Toll Plus*). A proposito del trasporto passeggeri, saranno discusse le possibilità di collegare le attività con la piattaforma *RouteRank* e il progetto *AlpInfoNet*, che sviluppano “servizi intermodali e piattaforme di prenotazione” come parte della strategia. Inoltre, c'è un potenziale di miglioramento delle infrastrutture ferroviarie e dei servizi che potrebbe essere sviluppato, incentivando la collaborazione i vari attori interessati (facendo uso dei risultati dei workshop iMONITRAF! sui diversi corridoi). Il Transport Forum 2014 a Innsbruck garantirà l'opportunità di consolidare il rapporto tanto con i Seguiti di Zurigo quanto con altri organizzatori.

1 Background and objectives

Past MONITRAF and iMONITRAF!

The Alpine regions are particularly sensitive to the negative impacts of freight and passenger transport. This is due to very high shares of heavy goods vehicles (HGV) in transalpine traffic, specific topographical features, limited spatial resources and highly vulnerable ecosystems. Although vehicle technology has improved significantly in the last years, the environmental and social impacts still continue to grow as traffic volumes keep rising.

To tackle the common challenges, the regions Rhône-Alpes, the autonomous Province of Bolzano, the autonomous Region of Aosta Valley, the Piemonte Region, the Friuli-Venezia-Giulia Region, the Canton of Ticino, the Conference of Governments of Central Switzerland, the Land of Tyrol as well as the European Academy of Bolzano have joined forces in 2005 to develop joint solutions. In the frame of two projects under the Alpine Space Programme, the regions have developed a common monitoring system and have analysed Best Practice measures as well as impacts of common steering instruments.

PERIMETER AND PARTNERS OF THE IMONITRAF! NETWORK

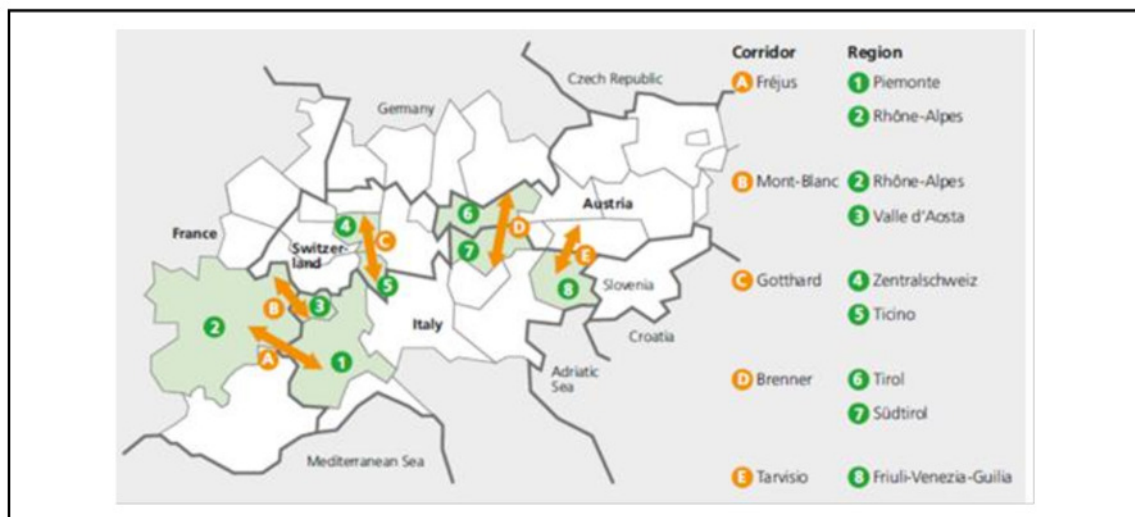


Figure 1

As highlight of the iMONITRAF! project (2009-2012), representatives from seven regions have signed a common resolution and strategy in May 2012. The strategy sets the framework for a sustainable transport system in the Alpine Space – reducing negative traffic impacts and preventing distributional impacts. Major elements are:

- A common understanding of targets forms the basis. While short-term targets are focused on environmental challenges, long-term targets aim at maximizing the use of rail capacities.
- Based on their exchange on Best Practices and innovative steering instruments, the regions agree to work towards the implementation of common measures. This includes harmonization of existing regional measures and a modal shift policy.
- The regions recognize the need for a further coordinated road traffic management system. They agree to the need to implement a road freight steering instrument at Alpine Arc level in the mid-term, focusing on a cap-and-trade approach.

- An Action Plan with a proposal to institutionalise the network.

iMONITRAF Network: New challenges under a new framework

Based on the political mandate of the iMONITRAF! resolution and strategy, political representatives of the iMONITRAF! regions have met in autumn 2012 to discuss the format for institutionalising the network. For the period 2013-2016, they decided to establish a Coordination Point which will continue the activities of iMONITRAF!. As previous observer, the Italian Province of Trento has also signed the common resolution and joins the Coordination Point activities. On 4th April 2013, a kick-off workshop for this Coordination Point took place in Zurich to define specific future activities of the network.

The Coordination Point shall support the implementation of activities and milestones towards an ambitious and coordinated transport policy of the Alpine regions. As basis for further discussions, the common monitoring activities will be continued, with an annual update of the WebGIS system. Further, the best practice exchange on regional measures will be continued to support the implementation of a harmonized set of measures in the long-term. Political networking as well as the identification of political “windows of opportunity” as well as related actions for iMONITRAF! are further tasks of the Coordination Point.

In its current phase, the iMONITRAF! network not only operates under a new institutional framework but also under new framework conditions and challenges. Already in the past project, it became obvious that bringing ambitious ideas for transforming transalpine transport systems to the political discussion is challenging. Especially on national and EU level, policy discussions have focused on solutions to the financial and Euro crisis. Fearing negative effects on their economic competitiveness, most countries are at the moment reluctant to impose new measures to curb transport emissions. Relevant discussions on EU level (e.g. regarding the further development of the Eurovignette Directive) have not moved forward lately.

Also, some discussions on national level pose new challenges to the network. In Switzerland, the discussion has shifted from the Alpine Crossing Exchange to the upcoming maintenance work on the Gotthard tunnel and the potential need for a second road tunnel (see chapter 4.1.2 for further details). This influences the implementation of the common measures proposed by iMONITRAF! as there is currently low political momentum in Switzerland. Other regions and countries also struggle with the implementation of new modal shift measures. In France, a new eco-tax has been planned for 2014 but had to be postponed several times due to lobbying activities. Other national developments bring a positive momentum to the iMONITRAF! discussion. Italy has finally ratified the transport protocol of the Alpine Convention in November 2012. In Tyrol, the coalition agreement of the new government of the Austrian People's Party and the Greens states the importance of the iMONITRAF! strategy and calls for the implementation of an Alpine Crossing Exchange.

Objectives of the annual report

The annual report of the iMONITRAF! network provides an update on common activities of the Alpine regions. It summarizes the results of the Coordination Point tasks and illustrates the strategic discussions and ideas of the network. Its main objective is to give an overview for political representatives as well as interested experts, administrations, NGO representatives, etc. which are interested in the work of the iMONITRAF! network and the way forward with the common strategy.

2 Monitoring of iMONITRAF indicators

One of the key elements of the iMONITRAF! work, the continuation of the monitoring of the indicators has been included as task B of the iMONITRAF! coordination point. The revised schedule foresees the activities of an annual data collection based on a revised indicator set and the update of both the annual brochure and the WebGIS system..

2.1 Revised set of indicators

The members of the coordination point decided to subject the indicator set a further revision. This procedure serves to discontinue the collection of indicators difficult to obtain or without immediate significance for the iMONITRAF! objectives. Other indicators have been shifted to a biennial collection due to their difficulty to obtain data but their relevance for the overall platform. The following table provides an overview of the status of the iMONITRAF! indicators after the revision:

#	Indicator	OK	Revision
1	Road traffic flows	☺	regular data collection continued
2	Composition vehicle fleet	☹	biennial collection, beginning in 2014
3	Transalpine rail traffic flows	☺	regular data collection continued
4	Air pollutant emissions by road traffic	☹	data collection discontinued
5	Air concentrations measured	☺	regular data collection continued
6	Noise assessment	☺	regular data collection continued
7	Toll prices	☺	regular data collection continued
8	Fuel prices	☺	regular data collection continued
9	GDP per inhabitant	☹	data collection discontinued
10	Population exposed	☹	biennial collection, beginning in 2014
11	Employees in the transport sector	☹	data collection discontinued
12	Health impacts	☹	data collection discontinued

2.2 Results 2012

The following chapter provides the main findings of the data analysis for the single indicators. To identify the single corridors more easily, it resorts to a consistent color scale: **orange**=Fréjus / Mont Cenis, **red** = Mont Blanc, **blue** = Gotthard, **green** = Brenner, **violet** = Tarvisio.

Indicator Road traffic volumes

To analyse the **overall annual average daily traffic for all vehicles**, the data refers to the peak/tunnels of the single corridors. For Fréjus, Mont Blanc and Gotthard the data represents the respective measuring stations in the corridors' tunnels. For the Brenner the data series hails from the station Matrei in Tirol (AT, A13), for the Tarvisio corridor, the data refers to the station of Ugovizza (IT, A23).

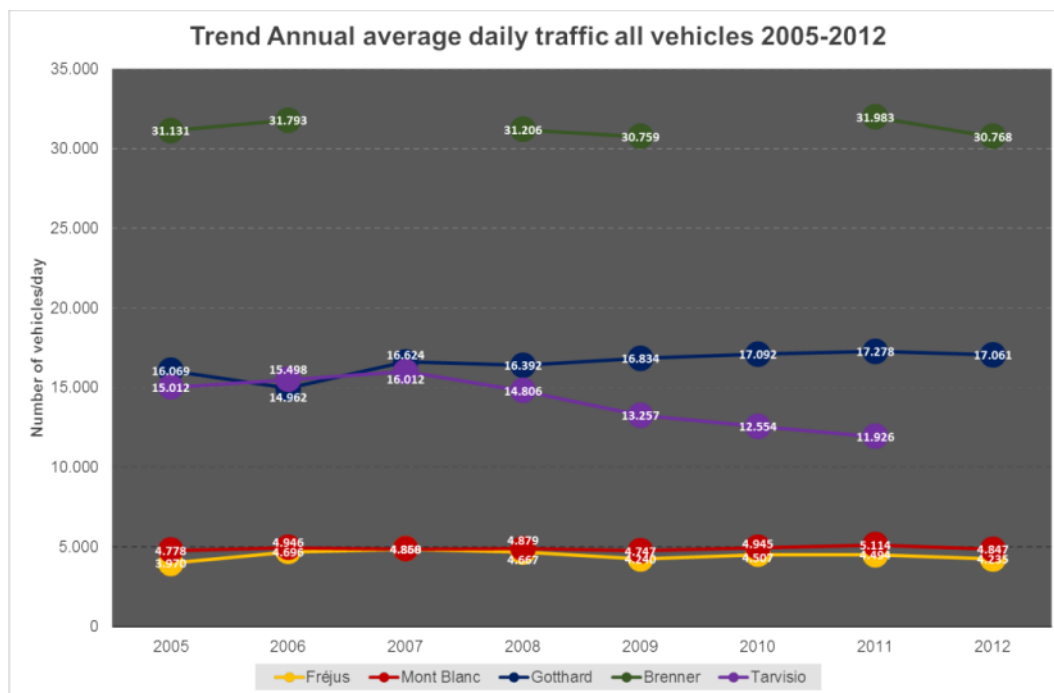


Figure 1: Annual average daily traffic: all vehicles.

With a daily average of over 30.000 vehicles, the Brenner remains the corridor with the highest traffic flows. Following are the Gotthard and also Tarvisio. Both corridors between France and Italy are at the bottom with the lowest values (between 4.000 and 5.000 vehicles per day).

The analysis of the trend since 2005 shows a relatively stable situation in the overall annual average daily traffic on the iMONITRAF! corridors. The volumes for Tarvisio however prove a steady decrease in the overall traffic volume since 2007. Most probable due to the economic crisis, the values for 2012 are however lower than in the previous year for all analysed corridors. In general terms, an increase of flows from 2005 to 2011 can be observed for the Gotthard. The volumes on Brenner, Mont Blanc and Fréjus demonstrate a certain stability, while Tarvisio undergoes a significant decrease.

With regard to the **annual average daily traffic of heavy vehicles¹** the highest values are still registered to the Brenner corridor, where in 2012 more than 6.500 heavy vehicles were counted at the station of Matrei in Tirol (Austria) in average every day. Tarvisio and Gotthard are following with almost similar traffic volumes in terms of traffic of heavy vehicles of about 4.000 heavy vehicles per day. The values registered on the Fréjus and Mont Blanc highways are significantly lower and partly reflect the restrictive measures and the comparably high toll prices on these axes (see indicator toll prices).

¹ Note that „heavy vehicles“ is the sum of heavy duty vehicles, light duty vehicles and coaches.

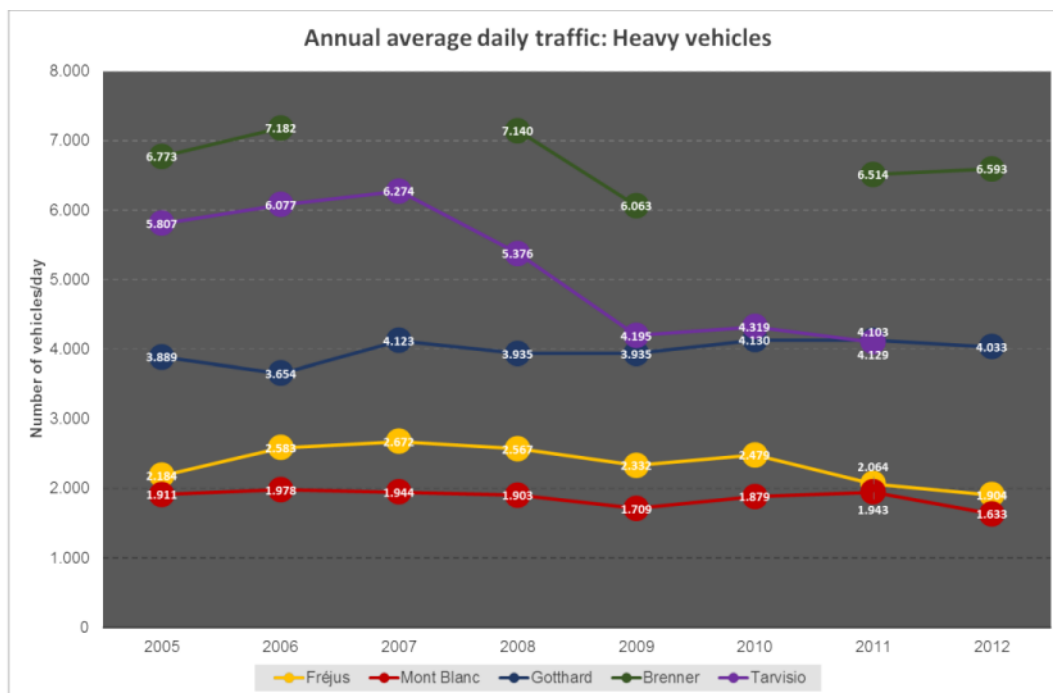


Figure 2: Annual average daily traffic: Heavy vehicles.

The comparison of the values for 2005 and 2012 shows that traffic of heavy vehicles is divided into corridors with a relatively stable situation (Fréjus, Mont Blanc, Gotthard, Brenner) and corridors which have undergone a significant loss in traffic volumes (Tarvisio). The analysis of the development since the year 2005 reveals several phases: Between 2005 and 2007, heavy vehicle flows increase on all corridors. This development is followed by a more or less pronounced decline for the years until 2009, which proves the impact of the economic crisis. The trend 2009-2010 shows some recovery, followed by another decrease 2010-2012 (except for Brenner).

The analysis of the **annual average daily traffic for light vehicles** (motorcycles, passenger cars and light duty vehicles) indicates the highest values on the Brenner with in average more than 24.000 vehicles per day in 2012. The traffic volumes for Gotthard and Tarvisio corridors are in mid-range while the registered numbers for the links between France and Italy are the lowest of the iMONITRAF! corridors.

The analysis of the development since the year 2005 depicts a slight increase of light vehicle flows on the iMONITRAF! corridors until 2011, with the exception of Brenner and Tarvisio, which have values lower than 2005. The latter has seen a steady decrease in numbers since the year 2007. The decrease due to the crisis is not as evident for light vehicles as it is for heavy vehicles.

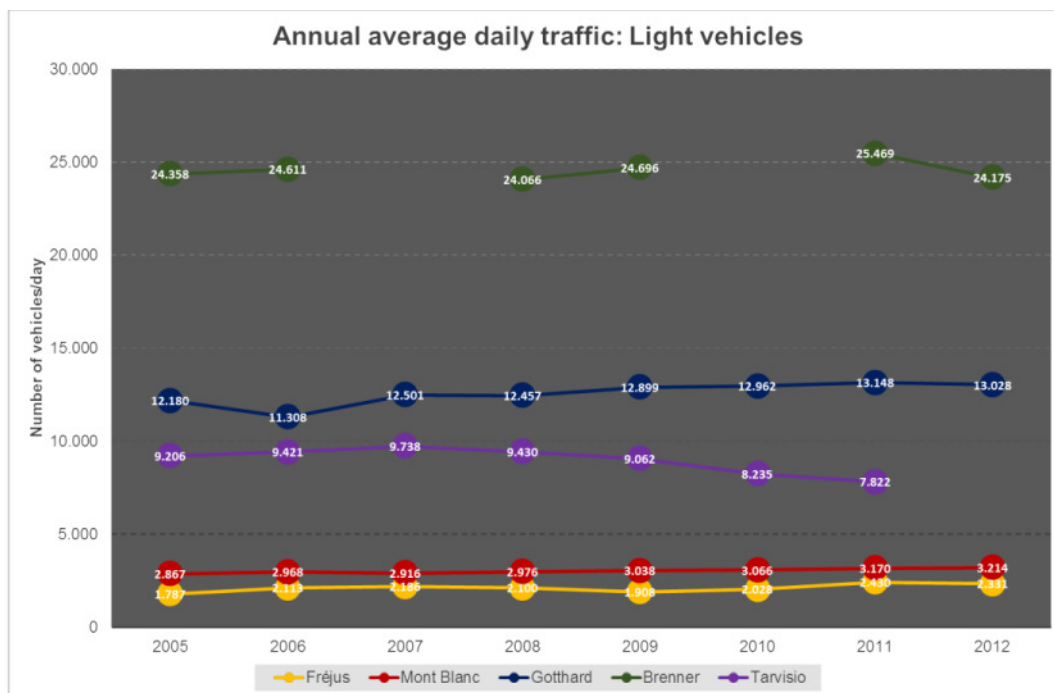


Figure 3: Annual average daily traffic: Light vehicles.

In the year 2012 however, a slight fall in light traffic volumes is noticeable compared to the values of the previous year. It remains to be seen whether this is only a temporary effect or the beginning of a new decrease due to the economic crisis.

Indicator Transalpine rail traffic flows

The analysis of the modal split for freight transport illustrates, that the Gotthard is still the corridor with the highest share of rail, followed by Brenner, Fréjus/Mont Cenis and Tarvisio. Mont Blanc does not have a transalpine rail connection, therefore 100% of the freight is transported across the alps on the road on that corridor.

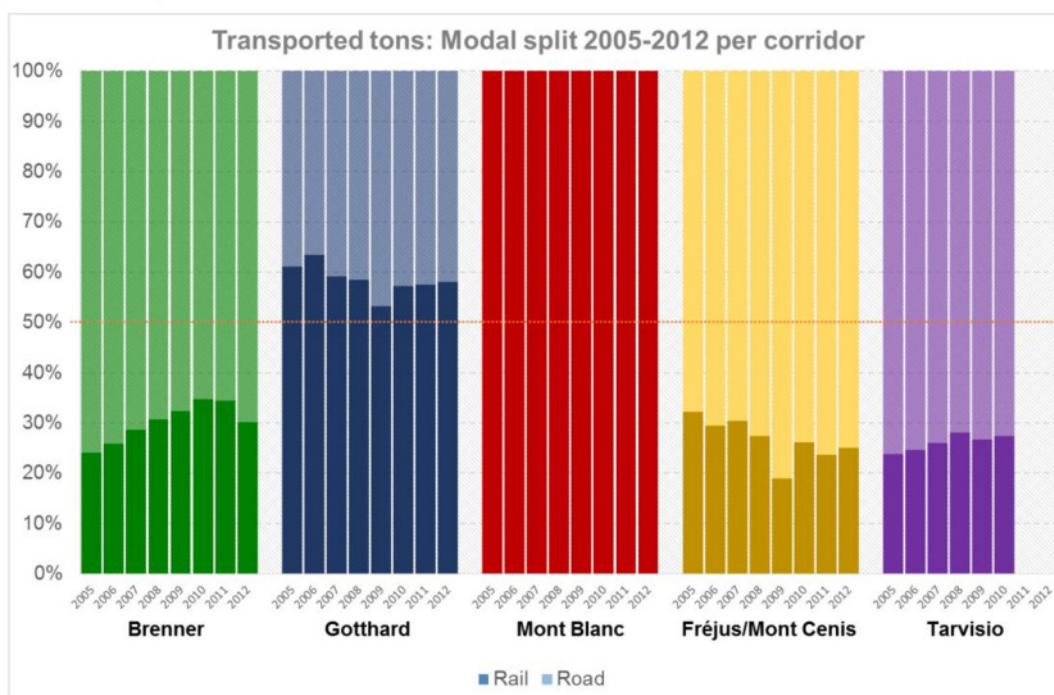


Figure 4: Transported tons: Modal split 2005-2012 per corridor.

The trend in modal split for Brenner and Tarvisio illustrates an increase of the share of rail transport, while the trend for the Gotthard and the Fréjus/Mont Cenis has decreased in favor of road freight transport. The drop on Brenner between 2011 and 2012 is due to a 2-month total closure of the railway line in summer 2012, which led to significantly increased importance of road transport in comparison to previous years.

Indicator Air concentrations measured

The following illustration shows the overall trend in annual average for **nitrogen dioxide (NO₂)** emissions between 2005 and 2012. The final report on the monitoring stated, that the stations above the European limit are all on the roadside, since nitrogen oxide is mainly related to road transport.

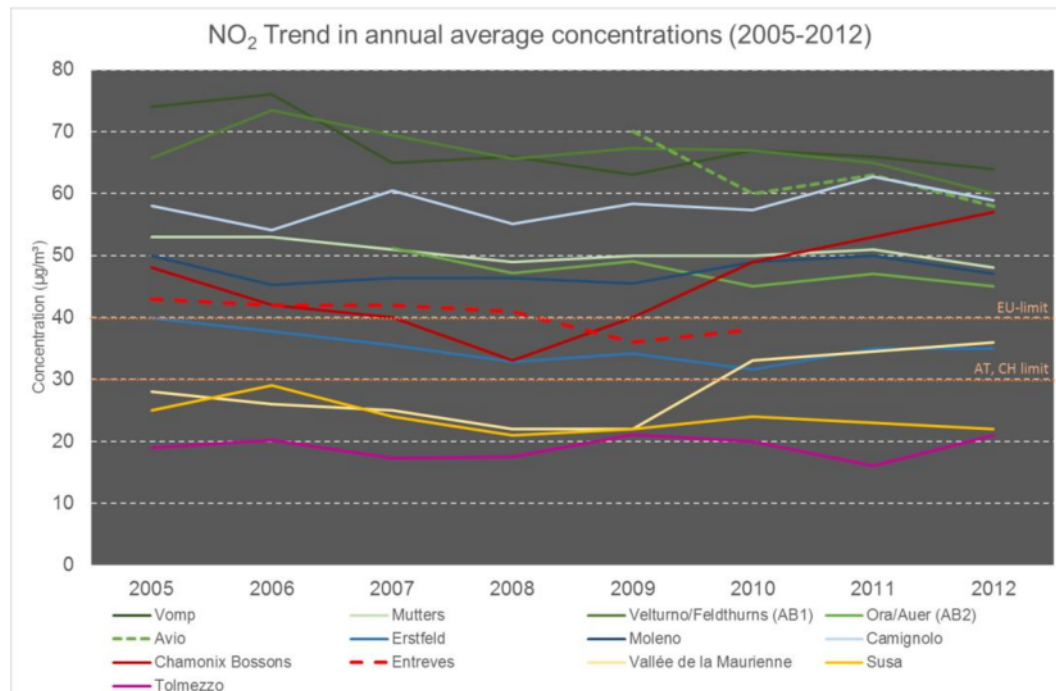


Figure 5: NO₂ trend in annual average concentrations (2005-2012)²

The figure therefore illustrates only roadside stations (near highways), as far as data has been available. In the year 2012 the highest concentrations are still measured along the Brenner (green colour scale), Gotthard (blue) and Mont Blanc (red) corridors. This corresponds with the two iMONITRAF! corridors with the highest traffic volumes (see indicator "Road traffic volumes"). The annual average values of nitrogen dioxide for the Brenner all above the European limit of 40 µg/m³. Along the Gotthard, all three stations exceed the Swiss and Austrian national limit of 30 µg/m³ of nitrogen oxide. Also the station Chamonix-Bossons (Mont Blanc, France) exceeds the European limit, while its Italian counterpart (Entrèves) is below the European limit. For the other two corridors, NO₂ concentrations below the European limits are registered. Since 2005, this situation has generally remained unaltered, and the annual average nitrogen dioxide concentrations are more or less stable. However, it has to be stressed, that the annual average concentrations for the stations of the Maurienne Valley and of Chamonix-Bossons have been continuously increasing since the year 2008.

Similar to the description of nitrogen dioxide, the analysis of the registered **particulate matter (PM₁₀)** concentrations resorts to the roadside stations to allow a clearer illustration. The situa-

² The value for the station Vallée de la Maurienne in 2011 represents the trend 2010-2012.

tion for 2012 proves that for the annual average concentrations no station exceeds the European limit of $40 \mu\text{g}/\text{m}^3$.

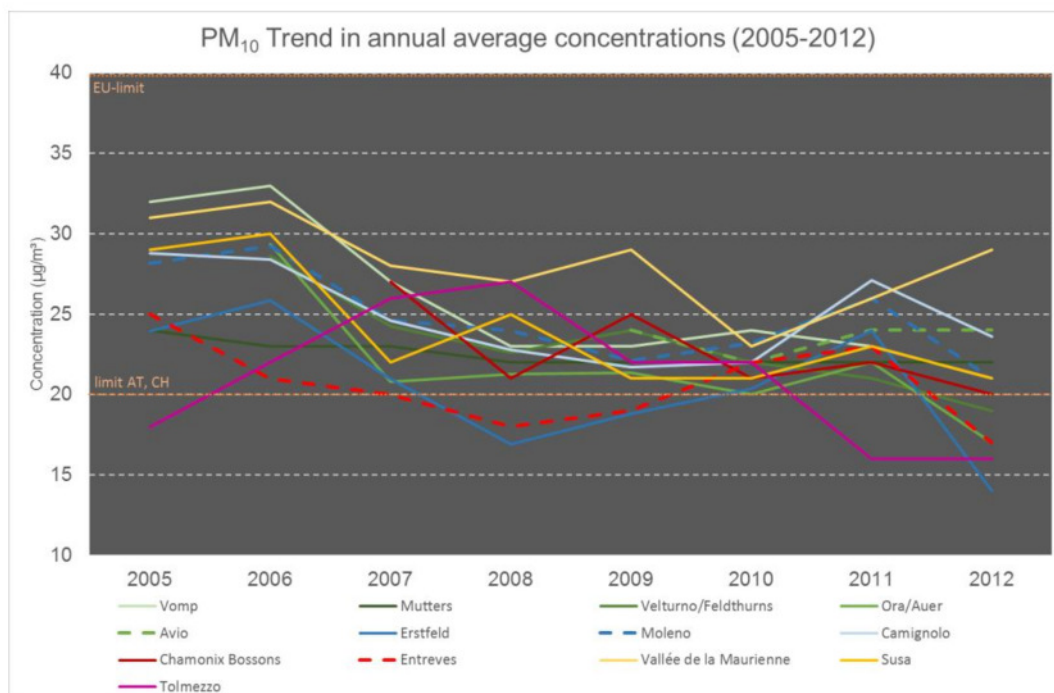


Figure 6: PM10 trend in annual average concentrations (2005-2012)³.

Further, five out of ten stations also fall under the Swiss and Austrian limits of $20 \mu\text{g}/\text{m}^3$. This is a result of the visible long-term trend in decreasing registered PM10 concentrations. For the five iMONITRAF! corridors, the range of measured values does not differ significantly and lies in the range between 15 and $25 \mu\text{g}/\text{m}^3$.

The more recent values for 2011 and 2012 confirm the trend of decreasing concentrations of particulate matter between from 2005 to 2009, as stated in the final report for the iMONITRAF! monitoring activities of 2012. After a significant decrease between 2005 and 2007, the concentrations remain more or less unaltered until the year 2010. For the year 2011 however, an increasing trend can be plotted, before dropping more or less to the values for 2010 in 2012. Interestingly, this trend corresponds also to the registered heavy vehicle flows (see chapter "Road traffic flows").

It has, however, to be stressed that PM10 is delicate indicator to analyse the connection to traffic volumes, since apart from traffic there are several further important sources for PM10 which have an influence on the measured PM10 concentrations.

Indicator 7: Toll prices

Toll prices are calculated for specific alpine passage segments of the five iMONITRAF! corridors. The segments are as follows:

- Fréjus: From Aiton (FR) to Avigliana (IT) via Fréjus road tunnel
- Mont Blanc: From Le Fayet (FR) to Pont Saint Martin (IT) via the Mont Blanc road tunnel
- Gotthard: From Luzern (CH) to Chiasso (CH) via the Gotthard Road tunnel
- Brenner: From Kufstein (AT) to Affi (IT) via the Brenner Pass
- Tarvisio: from Gemona to Tarvisio

³ The value for Vallée de la Maurienne in 2011 represents the trend 2010-2012.

The assessment is performed for the passage of a standard passenger car and a standard heavy duty vehicle of 5 exes and 40t, with distinction between EURO-classes 2 and 5. The objective is to assess the effect of the toll prices measures on the transalpine vehicles fluxes. The sums for the single alpine passages for the year 2013 are visualized in the illustration.

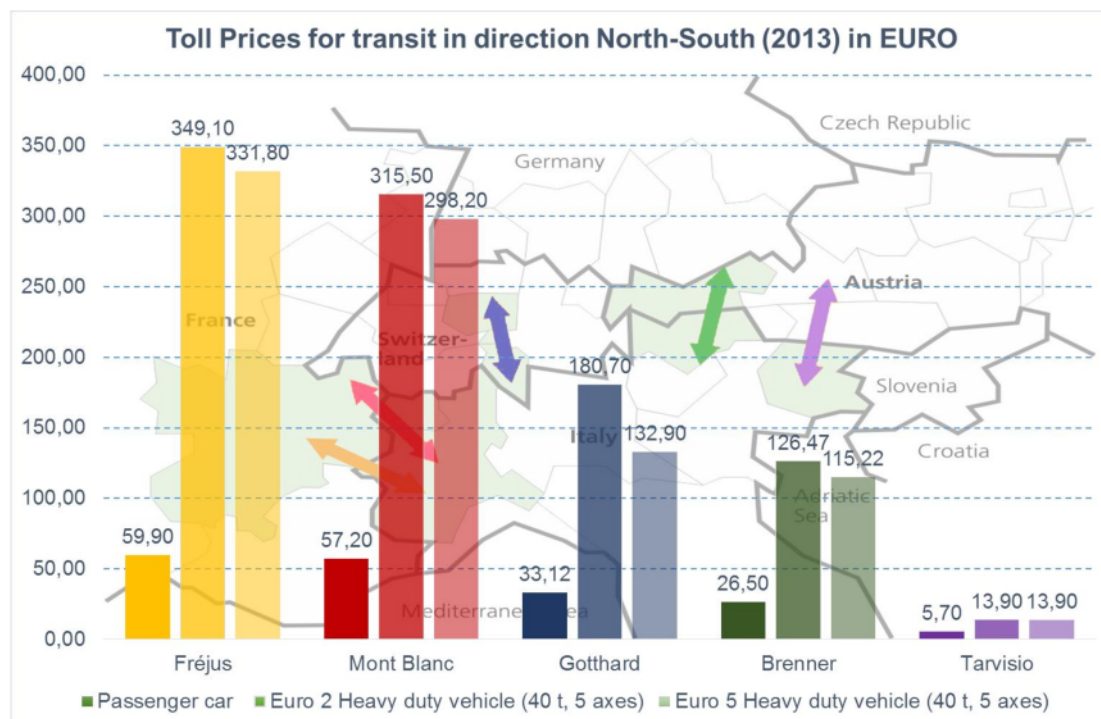


Figure 7: Toll Prices for a single transit on the iMONITRAF! corridors in direction North-South for the year 2013.

The calculated prices always base on the prices for a single passage. This refers to the Fréjus and Mont-Blanc tunnels, the Austrian highway vignette and the separate Brenner highway toll on the A13 in Austria as well as for the Swiss Highway toll. For these corridors also return tickets and yearly subscriptions are available, which would lower the overall cost for a single passage. For Switzerland only a yearly ticket is available.

For **passenger cars** the highest charges are applied in the corridors of Fréjus and Mont Blanc corridors. Here, a part from the highway tolls, it is the additional tunnel tolls (Fréjus, Mont Blanc), which are responsible for the high overall sum compared to the other corridors. It is also important to strike out, that the tunnel tolls on Fréjus and Mont Blanc differ according to the direction of travel: they are usually higher when travelling from Italy to France (41,70€ instead of 40,90€ for both Fréjus and Mont Blanc). The charges for both Gotthard and Brenner are in the midfield of the iMONITRAF! corridors, while the cost for a passage on the Tarvisio are the lowest, also due to the relatively short distance of the considered road segment.

For **heavy duty vehicles**, road tolls follow the similar West-East-divide as for passenger cars. The corridors on the west (Fréjus and Mont Blanc) charge the highest tolls while both Gotthard and Brenner charge medium-ranged sums. Tarvisio charges the lowest tolls for a passage. It is also the only corridor which has not yet applied a distinction of charges between single emission classes, which has a significant effect on the overall charges on the other corridors. In this context, the biggest difference can be assessed for the Gotthard, where a EURO5 truck only pays 74% of the charge of a EURO 2-vehicle. A further analogy to the situation for passenger cars is that the tunnel tolls on Fréjus and Mont Blanc differ according to the direction of travel also for heavy duty vehicles: the charge is higher when travelling from Italy to France (304,20€ compared to 298,20€ for a EURO 5 truck for both Fréjus and Mont Blanc).

Generally, it becomes evident, that travel costs are inversely proportional to traffic volumes: Fréjus and Mont Blanc tunnels have the highest prices and the lowest traffic volumes among the five iMONITRAF! corridors (see indicator “Road traffic volumes”). The trend from 2005 to 2012 of the prices is in increasing for each corridor. For the economic crisis period 2008-2010 only in the Gotthard corridor the prices did not increase.

3 Moving ahead on regional and national level: Update on Best Practices

The iMONITRAF! Best Practice Guide has provided a comprehensive overview on regional and national measures. Design features, impacts and implementation processes of selected measures have been analysed to identify factors for success. On this basis, several measures have been proposed to be taken forward as common measures.

As the Best Practice Guide is now nearly four years old, it is time to take stock of achievements and revisions. This chapter provides an overview: it starts out with a short description of revised and new best practice measures. This analysis follows the structure of the Best Practice Guide along the five policy pillars as illustrated in the following table. For major revisions and new measures, factsheets in the Annex report provide more detailed information.⁴

Also, this section provides information on Best Practices in the Autonomous Province of Trento as new partner region of the iMONITRAF! network. Trento is situated along the Brenner corridor and has already institutionalised a close cooperation with Tyrol and South Tyrol in the Euro-region. Also, it is a participant of the Brenner Action Plan which is currently under revision and a member, with RFI, the autonomous Province of South Tyrol and the Province of Verona, of TFB S.p.A. (Tunnel Ferroviario del Brennero holding AG) the company which holds for Italy the 50% share of BBT Se, the European public company for the planning and construction of the Brenner basetunnel. Austria and Italy hold both 50 % of the shares of BBT Se.

Taking into account new measures and revisions in the “old” iMONITRAF! regions as well as new information from Trento, the recommendations of the previous Best Practice Guide as well as the achievements towards the common measures of the strategy are reflected. The main measures presented in this section are summarized in the following table:

⁴ The iMONITRAF! Best Practice Guide has provided detailed factsheets for all best practice measures that have been collected in spring 2010. The factsheets include information on objectives, main design features, impacts, costs and revenues, responsibilities, legal and institutional frameworks and the implementation process. As the resources of the Coordination Point are limited, it has not been possible to provide detailed factsheets for all new measures and for all revisions.

The Annex report is available as separate document on the iMONITRAF! homepage.

OVERVIEW: BEST PRACTICE UPDATE 2013

Policy Pillar	Name of measure	Country/region	Detailed factsheet ⁵
Pillar 1: Information, monitoring, awareness raising	Fair distribution of traffic between Mont Blanc and Fréjus tunnels	France (national level)	no
Pillar 2: Limiting negative impacts of Alpine transport	Extension of night driving ban to EURO 5 HGV	Tyrol (regional level)	no
	Revision of the law on noise remediation of railways	Switzerland (national level)	yes
	Extension of driving ban to EURO 2 HGV in the Mont Blanc tunnel	France/Italy	no
	Noise action plan and air quality program	South Tyrol (regional level)	yes
Pillar 3: Modal Shift	Implementation of "Ecotaxe poids lourds" (new HGV fee on national and regional roads)	France (national level)	yes
	Adjustment of the Heavy Vehicle Fee (LSVA)	Switzerland (national level)	no
	Adjustment of the Brenner Maut	Tirol (regional level)	no
	Cross financing on Brenner motorway	Italy, Trento and South Tyrol (nat. & regional level)	no
	Extension of the Gotthard railway corridor to a 4 meters profile	Switzerland (national level)	yes
	Intermediate cancellation of sector driving ban	Tyrol (regional level)	no
Pillar 4: Passenger transport	Revision of mobility program	Tyrol (regional level)	yes
	Innovative tourism offers with free public transport tickets	Trento (regional level)	yes
	Support of low-emission vehicles for public transport	Trento (regional level)	yes
	Synchronized public transport services "Südtirol-Takt"	South Tyrol (regional level)	yes
Pillar 5: Innovative approaches	Cooperation agreement between eight Italian regions and the national ministries to develop common measures to improve air quality	South Tyrol, Trento, Friuli Venezia Giulia and 5 other region + national level	yes

Table 1: Source: Own compilation of the iMONITRAF! network

⁵ Detailed factsheets have been prepared for a selection of measures only. The factsheets are presented in the Annex Report.

3.1 Overview on revised and new Best Practices

3.1.1 Pillar 1: Information, monitoring, awareness raising

There are no major changes regarding the information, monitoring and awareness raising activities as set out in the iMONITRAF Best Practice Guide.

The Province of **Trento** as new participant to the network takes part in the **monitoring activities of the Brenner Corridor Platform** and has set up an **emissions inventory** as required by the national law, to estimate the impacts of main emission sources, including road traffic (using the Inemar method, in association with eight other Italian regions and autonomous provinces).



Monitoring results have led to some actions on the French-Italian corridors affecting the **fair distribution of traffic between the Fréjus and Mont Blanc corridors** (see original factsheet on p. 78 of BP Guide). As air quality has further deteriorated in Vallée de l'Arve (along the Mont Blanc corridor), driving bans for low emissions vehicles have been extended to EURO 2 since the end of 2012 (previously only EURO 0 and 1). These HGV will probably shift to the Fréjus corridor, making it more difficult to meet the agreed share of traffic between the tunnels (each tunnel should carry at least 35% of HGV traffic).



→ This shows again the need for harmonised action along the corridors.

3.1.2 Pillar 2: Limiting impacts of Alpine transport

Pillar 2 with its focus on regulatory measures has seen some further developments since the Best Practice Guide.

In **Tyrol**, the **night driving ban** on the Inn Valley motorway has been extended to EURO 5 in November 2012. This extension of the night driving is a measure of the revised air quality program as Tyrol still needs to meet EU air quality standards. The night driving ban is effective between 8 p.m. and 5 a.m. in the winter time (November to April) and between 10 p.m. and 5 a.m. in the summer (May to October). Food and animal transports as well as passages to the combined transport terminals in Hall and Wörgl are exempted from the night driving ban.



→ This can be seen as one important step towards harmonisation with the Gotthard corridor. Switzerland has implemented a general night driving ban which has led to traffic shifts to the Brenner (although less relevant than the difference in transport prices).

In Switzerland, monitoring and modelling results have shown the potential noise impacts of a further modal shift from road to rail. To ensure acceptance for modal shift measures and infrastructures, it became clear that additional measures need to be implemented to protect citizens from rail noise. Up to now, the **law on noise remediation of railways** has set the relevant framework (see factsheet on p. 84 in BP Guide⁶). This law has now been revised to stabilize noise impacts even with a further increase of rail transport. As noise standards for new rolling stock will only take effect after the complete renewal of the fleet, Switzerland will introduce additional noise emission standards for existing rolling stock from 2020. This implies that rolling stock with conventional grey cast iron blocks will be prohibited. In addition, further noise reducing measures on rail infrastructures shall be implemented and financing for innovative solutions is provided.



→ Important framework condition for modal shift. Acceptance for modal shift depends on effective solutions to rail noise.

⁶ The iMONITRAF! Best Practice Guide is available online: <http://www.imonitraf.org/i4Def.aspx?tabindex=0&tabid=439>

Similar to the regulatory framework in other regions, the Province of Trento has introduced speed limits on the A22 motorway, partly differentiated for cars and heavy vehicles. Speed limits shall reduce road noise and are supported by additional photovoltaic noise barriers. Speed limits have further been implemented on provincial and municipal roads of Trentino.



In South Tyrol, the environment agency has implemented several measures to limit negative transport impacts in 2013. It has developed a noise action plan to fulfil requirements of the EU Directive on environmental noise. This includes noise protection measures along regional and national roads in South Tyrol. Also, noise barriers have been constructed along major rail lines. To improve air quality, a catalogue of specific measures has been developed which supports the existing NO₂-remediation plan.

On the Mont Blanc corridor, driving bans for low emissions vehicles have been extended to EURO 2 since the end of 2012 (see pillar 1 for further information).



3.1.3 Pillar 3: Modal shift

In line with the iMONITRAF! recommendations to extend and harmonise pricing systems along the Alpine corridors and (partly) triggered by the new framework of the Eurovignette Directive, the last year has seen some changes regarding toll systems.

In France, a new toll will be implemented on national and regional roads, officially from January 2014 onwards, but more likely later on as heavy industry and agribusiness lobbies managed in convincing the current Government to postpone it *sine die*. This “**Ecotaxe poids lourds**” will support the existing motorway toll. The toll is charged according to the distance travelled and the taxation level is defined for different categories of vehicles (number of axles and authorized total weight of charge). Rates lie between 8,8 and 15,4 €ct. per km in 2014 and will be adjusted dynamically in the coming years. This taxation level is then further differentiated according to the pollution level of the vehicle (criteria are the European emission classes). One interesting feature of the “Ecotaxe poids lourds” is its regulation for passing on the costs: for pragmatic reasons, a fixed surcharge has been agreed that transporters can pass on to their clients. This surcharge depends on a regional taxation level and lies between +1,80% and +6,30% (2,50% in Rhône-Alpes) or an interregional taxation level: 4,4%. This surcharge provides clear incentives for transporters to use clean vehicles and to maximise capacity use.



In Switzerland, the **Heavy Vehicle Fee (LSVA)** has been adjusted to inflation in 2012. The rates increase slightly by 0.02 Swiss centime per ton and per kilometre for the best emission class (EURO 4 upwards) and 0.03 Swiss centime for lower emission classes. Recently, a court decision has again confirmed the overall level of the LSVA, especially the integration of congestion costs.



In Tyrol, the **Brenner Maut** has slightly increased as less “drastic” measure before the sectoral driving ban can be re-implemented (see below). However, the room for flexibility is limited due to the regulations of the Eurovignette Directive.



- ➔ With the new Ecotaxe poids lourds in France as well as the revisions in Switzerland and Tyrol, some of the previous recommendations of iMONITRAF! are reflected. Tolls are extended to the national and regional road network to prevent unwanted traffic shifts and toll prices are adjusted dynamically to reflect inflation.

An innovative cross financing has been introduced in 1997 for the construction of the Brenner base tunnel with the State law nr 449/1997 with relevance for the Brenner motorway concessionaire and the **Italian Government as well as the Autonomous Provinces of Trento and Bolzano**. The law authorises the Brenner motorway concessionaire to set aside a fund exempt



from tax in order to finance the construction of the base tunnel and the southern access routes. At the expiring of the concession in 2014 the fund set aside by A22 company will add up to EUR 550 Mln.

Being an element of the common strategy, the information on the **sectoral driving ban in Tyrol** also needs to be updated. After the decision of the EU Court of Justice in December 2011 the sectoral driving ban is still “on hold” until less “drastic” measures have been implemented. The Brenner Toll has already been adjusted slightly. Further, the flexible speed limit has been adjusted to a higher sensitivity. In addition, HGV controls shall be intensified and low-emission HGV shall receive special support. There are however no specific plans until when the sectoral driving ban will be re-implemented. A catalogue of measures which are seen as “less drastic” and need to be implemented prior to the re-implementation of a sectoral driving ban is currently under development.



Regarding the construction of new railway infrastructures there are no major updates. As important accompanying measure, it is however relevant to mention the **Swiss strategy for a 4 m corridor**: the existing tunnel profile along the Gotthard corridor (Basel–Gotthard–Chiasso/Luino–Northern Italy) will be extended to allow the passing of combined transport trains carrying vehicles with a corner height of 4 m (and 2,6 m width). This supports the capacity utilisation of the new base tunnel and thus contributes to meeting the modal shift objectives as set out in the Swiss constitution (which are part of the iMONITRAF! strategy).



3.1.4 Pillar 4: Passenger transport

In the frame of the iMONITRAF! strategy, the regions have agreed to continue the exchange on Best Practices for passenger transport.

In Tyrol, the mobility programme “Tirol mobil” has seen a major revision and is extended to the period 2013-2020. The programme shall further strengthen the modal shift to public transport. Also, cycling shall be supported. Here, the programme considers new technological conditions with e-bikes becoming more and more relevant. Their use leads to higher cycling speed and poses new challenges to the arrangement of bike networks. Also, it is interesting that the programme foresees the nomination of a “mobility coordinator” who is in charge of managing the programme.



- ➔ The revision of the “Tirol mobil” programme provides a good example how mobility programs can be monitored and dynamically adjusted. With the nomination of a coordinator, the implementation process is institutionalised and it becomes easier to integrate the programme into other activities.

In Trento, the regional government has discussed several possibilities for offering **free tickets for public transport**. This has been necessary after a Government Resolution of March 2013 has established that any form of free services paid for entirely by local authorities or regional bodies is not in line with the principles of fairness and efficiency. Still, the regional administration as well as the tourism sector saw a need for offering free tickets to strengthen public transportation in the province of Trento. It was agreed that a special organisation has to identify cases where free tickets are necessary to maintain the modal share of public transport and for providing attractive tourism services. Examples include free shuttle buses to tourism destinations, free cable car systems, mobility services as well as a Guest Card for free public transport services for tourists. One major objective in 2013 was the introduction of a tourist card with integrated microchip to allow free access to all public transport services. This card has been tested during the winter Universiade which took place in Trentino in 2013.



Regarding passenger transport, the Province of Trento has also put considerable energy into **technological innovations for public transport**. In particular, electric minibuses fuelled by hydrogen fuel cells were introduced in 2013, commissioned by Trentino Trasporti. Also, the use of “zero” emission buses for routes in the Dolomites within the UNESCO World Heritage site represents a cutting edge project, which will be completed with the subsequent design and construction of a production system based on the use of renewable energy.

Strengthening public transport is an important objective in South Tyrol as well. One main element is the project „**Südtirol-Takt**“ (South Tyrol Pulse) which foresees the implementation of hourly/half-hourly connections on all important routes and between the main intersections as well as a dense supply during peak hours. The project is based on four main pillars: 1) a synchronized timetable, 2) high quality supply with attractive rolling material, user-friendly stations, etc., 3) a customer-oriented pricing strategy as well as 4) easy accessibility with a dense sales network, an information platform, etc. The “Südtirol-Takt” project shall further increase the modal share of public transport. Between 2008 and 2013, it already led to an increase from 2.8 to nearly 6 Mio. rail kilometers and from 22.1 to 31 Mio bus kilometres.

Regarding the main directions on passenger transport of the iMONITRAF! strategy, the **multi-modal information and ticketing platform RouteRank** has been identified by the Coordination Point. This internet platform allows for multimodal travel searches across Europe and allows a ranking according to travel time, travel price or CO₂-emissions.⁷ It was agreed that the Coordination Point takes up contacts to this platform to obtain more information and to discuss possibilities for networking. Also, the project “AlpInfoNet” under the Alpine Space Programme shall be contacted as it has the objective to set up a sustainable mobility information network.

3.1.5 Pillar 5: Innovative approaches

As innovative networking and decision making approach, the Italian regions Piemonte, Veneto, Emilia-Romagna, Lombardia, Valle d’Aosta, Friuli Venezia Giulia, Trentino and South Tyrol have signed an agreement with five relevant national ministries to improve coordination and common implementation of air quality measures (“Accordo di Programma per l’adozione coordinata e congiunta di misure di risanamento della qualità dell’aria”). As the national level has major responsibilities regarding air quality measures in Italy (except in the autonomous regions), this treaty improves the participation of regional authorities in the decision making process. Also, it shall improve the harmonisation of measures to use synergies and to prevent unwanted distributional impacts. Regarding transport, the agreement foresees a focus on urban mobility plans, harmonization of speed limits and driving bans as well as promotion of innovative technologies (electric and fuel cell).



3.2 Best Practice Update in the light of previous recommendations and latest trends in transalpine traffic

The Best Practice Guide has argued for a further harmonisation of regional measures to improve their effectiveness. This aspect has been taken up in the iMONITRAF! strategy which includes the harmonisation of regulatory measures (especially driving bans and speed limits) as

⁷ The platform can be tested here: www.routerank.com

one major common measure. With the new information on measures, the situation can be interpreted as follows:

- There have been several steps towards harmonising the different driving bans along the corridors. On the Mont Blanc corridor, further low-emission vehicles are prohibited and Tyrol has extended its night driving ban. Still, the situation remains fragmented. The regulation along the Mont Blanc will directly affect traffic volumes on the Fréjus corridor and thus the fair distribution of traffic. Along the Brenner corridor, the relevant stretch of the corridor that is regulated by Tyrol is rather short so that regional policies do not lead to major impacts. Especially the night driving ban and the toll should also be applied in South Tyrol, leading to a longer relevant stretch. Also, the Province of Trento could further harmonise its regulations.
- As the timing of the re-implementation of the sectoral driving ban is still unclear, it is difficult to further discuss the transfer of this instrument to other corridors and thus its role as common iMONITRAF! measure. However, the measure is still seen as best practice measure and will be considered in iMONITRAF! discussions as soon as the schedule in Tyrol for the implementation of “less drastic measures” and the re-implementation are clear.

The harmonisation and optimisation of pricing systems is the next common measure of the iMONITRAF! strategy. To discuss the next steps for common action, the following developments need to be considered:

- Some improvements regarding more comprehensive pricing systems can be seen. Especially the new instrument in France would be a step forward, but its start has already been postponed several times. But even if this system is finally started, major optimisation potential remains. Especially, not all countries make full use of the possibilities to charge external air and noise costs as allowed by the 2011 Eurovignette Directive and the mark-up factor possible for Euroclasses 0-3.
- The EU framework with the Eurovignette Directive still holds a large potential for improvement. External cost factors, possibilities for differentiation as well as regulations on cross-financing that are important for the Alpine regions should be considered in a future revision, if possible in the frame of a Toll Plus system.
- For the Brenner corridor, it would be important to extend a more ambitious pricing approach to South Tyrol or even to Trento to charge a longer stretch. In Italy, pricing measures are however implemented on national level so that the national level needs to become active. Also, partners along the German stretch of the Brenner corridor should be motivated to support a more ambitious pricing approach.
- The further discussion on pricing systems also needs to consider possibilities for cross-financing, considering the legal constraints. Here, the experiences in Trento (with cross-subsidisation on the Brenner motorway) and the plans in France with the *ecotaxe poids-lourds* need to be considered.

The further implementation of a modal-shift approach and additional measures depends crucially on the level of public acceptance. The update on Best Practices shows several initiatives to increase public acceptance for modal shift:

- One important aspect has been taken up in Switzerland: the revised law on noise remediation of railways *de facto* leads to a ban of old cast-iron railway brakes and will thus reduce railway noise considerably. In addition, further noise protection infrastructures will be build. As the problem of rail noise has been a major point of discussion dur-

ing previous iMONITRAF! corridor workshops, this example could be transferred to other regions.

- Trento aims at improving the acceptance for modal shift by providing free public transport services.

Measures regarding passenger transport have a smaller focus in the iMONITRAF! strategy. One important measure is the implementation of a common ticketing and information platform for public transport providing door-to-door services. This measure has not yet been taken forward by the network as it requires considerable financial resources. However, there is an opportunity to link the iMONITRAF! activities with the RouteRank platform or the activities under the project “AlpInfoNet”.

4 Trends for transport and environmental policies on national and EU levels

This section provides an overview on current trends in transport and environmental policies on national and EU level. It is aimed at identifying potential windows of opportunity and to set the agenda for future iMONITRAF! activities.

4.1 Current transport issues

4.1.1 Relevant developments on EU level

New TEN-T guidelines (core network) and Connecting Europe Facility

In November 2013, the European Parliament and Council have approved the new regulation regarding the core transport network to be established by 2030 and the criteria for granting European subsidies. The new EU infrastructure policy aims at creating a real network and no longer focuses on isolated projects. This core network has been refined in October with nine priority corridors heavily focussed on rail, inland waterways and ports, among which four corridors concern the Alps:

- the Baltic-Adriatic corridor, including the Semmering base tunnel,
- the Scandinavian-Mediterranean corridor, including the Brenner base tunnel and its access routes,
- the Rhine-Alpine corridor, including the base tunnels in Switzerland, partly already completed, and their access routes in Germany and Italy,
- and the Mediterranean corridor, including the Lyon-Torino base tunnel and its access routes, plus the section Venice - Ljubljana.

Transport financing under the Connecting Europe Facility for the period 2014-2020 will focus on this core transport network, filling in cross-border missing links, removing bottlenecks and making the network smarter. As the European Transport Commissioner Siim Kallas announced during the TEN-T days in Tallinn, the nine corridors will benefit from a 26 billion Euro EU grant before 2020, with a 40% co-financing for cross-border projects. This is a great chance for improving rail capacities in the Alps.⁸

The resolution of EU Members of Parliament for sustainable transport

On September 10th, the members of the EU Parliament adopted a resolution related to a European transport-technology strategy for Europe's future sustainable mobility. Convinced that such an approach will support the reduction of energy consumption, noise pollutions of traffic, air pollutants and greenhouse gas emissions, the EP insisted on the necessity of fixing firm objectives for 2020, 2030 and 2050. The resolution calls for the implementation of incentive measures to favour the sustainable means of transportation and considers that innovative solutions for reducing noise pollution are imperative.

⁸ Please note: it is the States which will have to answer the EU calls for proposals (and not Regions).

Update on Eurovignette Directive

A European Commission assessment of the 2006 Eurovignette directive on road charging rules for lorries, issued in January 2013, stressed the difficulties of the current patchwork of national charging systems across the EU.

Considering the conclusion of this ex-post evaluation, the EC is now planning to permanently shift its method for measuring road pricing away from time-based charges as vignettes towards distance-based tolls, considered as a much fairer system. A draft directive proposal has been prepared, which would also simplify EU states' notification and reporting requirements, introduce new values for infrastructure and external costs and ensure greater transparency and non-discriminatory rules for tolling schemes. The changeover is planned for January 2019.

Discussion on HGV dimensions and Gigaliners

On April 15th, the EC proposed new rules on the weights and maximum dimensions of HGV (amending the Directive 96/53/EC). This proposal refers to the sensitive question of gigaliners, which already circulate in Denmark, Sweden and Finland and on which members of the Parliament had been in disagreement from 2012 with the Commissioner Siim Kallas. In this occasion Greens and Socialists clearly expressed their opposition to the circulation of these long and heavy trucks, mainly for reasons of road safety, expensive adaptation of infrastructures and environmental costs.

On September 5th, a study on the potential impact of gigaliners in Europe, realized by the consultant Steer Davies Gleave, was presented in the Parliament transport committee. Compiling the results of several researches, it concludes "that there are obvious benefits [in gigaliners], the question being for politics to know if the uncertain inconveniences are going to materialize". The opponents considered the report as biased and incomplete. Dominique Riquet (PPE, France) concluded the exchanges in the following way: "from the point of view of the economic players of the road transport, megatrucks are highly desirable. Considering the overall socio-political plan (...), they deserve to be considered with the highest caution".

On September 17th, the reporter of the Parliament Jorg Leichtfried (S&D, Austria) presented his project report in Committee TRAN and declared that he is still against the cross-border circulation of gigaliners. The deadline for the deposit of amendments on the report was fixed for November 20th. Its adoption in the transport committee is planned next February and the passage in plenary should be scheduled for April, 2014.

New emission standards EURO VI for HGV and coaches

At the beginning of 2013, it was decided to introduce, in several stages from 2014 to 2017, the new EURO VI emission standards for HGV and coaches.⁹ According to these standards, manufacturers are obliged to implement technical measures guaranteeing an effective limitation of NOx (80% reduction) and PM emissions (66% reduction). To facilitate the market launch of vehicles which satisfy the standards, member states have the possibility of granting financial incentives until December 31st, 2013. Other measures are also possible for the adaptation of vehicles already in circulation or for their scrappage. The amount of these incentives corresponds to the additional costs for technical adjustments.

⁹ Implementation start of EURO VI depends on engine and vehicle type. Details can be found in the relevant EU regulation: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:167:0001:0168:EN:PDF#page=20&zoom=auto,0,487>

4.1.2 National level

In **Switzerland**, the current discussion on the Swiss modal shift policy is summarized in the Progress report on modal shift (“Verlagerungsbericht”).¹⁰ The previous Progress report issued in 2009 has identified the difficulties in meeting the modal shift aim as laid down in the Swiss Constitution. As a result, one important measure has been the extension of the Gotthard corridor to a 4 metre corridor (as illustrated in chapter 3.1.3). Further, it has been agreed in the frame of the previous progress report to analyse optimisation potentials for the Heavy Vehicle Fee. The new modal shift report confirms the effectiveness of the current modal shift policy package. It does not foresee any additional new measures (the implementation of an Alpine Crossing Exchange is already foreseen by the previous report). To prevent a shift back to road transport, it however states the need to continue subsidies to combined transport.

Also, an important discussion focuses on the upcoming construction work of the Gotthard road tunnel. The Swiss Federal Council has now proposed to build a new road tunnel which shall only be operated as one-lane tunnel. It is argued that this would not increase the road capacity of the Alpine corridor. The Swiss Parliament will discuss this proposition. Several initiatives, including the Alpine Initiative, have stated that they will launch a public referendum which could lead to a poll in 2015 if the government finally proposes the construction of a second road tunnel. The discussion will continue in 2014.

In **France**, the discussion focused on future transport investments: as the previous list of transport projects was not financially sustainable, the current Government asked a commission (“Commission Mobilité 21”) to analyse and prioritize them. The report underlined the need to concentrate efforts on daily transportation (regional trains) and on modernization of existing infrastructures. As a consequence, the main rail projects – of which the French access to Lyon-Torino project – had been postponed after 2030. However, the Lyon-Torino base tunnel remains a priority for France (even if controversial), and some decisions should be taken soon by States in order to begin the drilling work, especially as the European Commission confirmed the possibility of a 40% co-financing.

Also, there is a little progress on regulation measures with the **HGV eco-tax** on national level. This new tax turned a corner in 2013 with the passing of a set of bills and with the last technical adjustments. Anyway, the level of acceptance remains very low and some heavy and agribusiness industries managed in postponing again its implementation, foreseen from January 2014 onwards but suspended *sine die*.

Austria has seen national elections in 2013 which supported the coalition of the Social Democratic Party and the Austrian People’s Party. The coalition agreement foresees a strengthening of climate policy and a stronger regulation of nuclear energy. Also, it calls for a stronger modal shift policy to reduce negative environmental impacts. It foresees a new catalogue of modal shift measures. This will be based on the current transport master plan (2012) which shall lead to a 40% share of rail until 2025, a reduction of transport CO₂-emissions by 19%, of NOX emissions by 79% and of PM emissions by about 50% compared to 2010.

As one of the last member states, **Italy** officially ratified the transport protocol of the Alpine Convention on 09.11.2012. The protocol entered into force on May 7th 2013. However, Italy alleged a declaration in the interpretation of the transport protocol. The note declares that the transport protocol might not concern long distance road projects on Italian territory, including the realization of infrastructures necessary to foster the goods traffic with states north of the Alps. Critics argue that in doing so, Italy does not declare valid one of the protocols fundamental articles.

¹⁰ The modal shift report is available online: <http://www.bav.admin.ch/verlagerung/index.html?lang=de>

4.2 Current environmental issues

4.2.1 EU level

Discussion on Multiannual financial framework with implications on European programs

The vote by the European Parliament of the **multiannual financial framework for period 2014-2020** occurred finally on November 19th, 2013. Authorities are however still working on a joint definition of the programs to be supported over 2014-2020.

Two of ten **programs out of the regional policy** may be interesting for the iMONITRAF! network during the next period: the Connecting Europe Facility (cf. Chapter 4.3.1) and the LIFE program for environment and climate change, which will be endowed with a 3 billion euro budget. The program foresees the development of integrated programs led on a large scale and in coordination with other funds. Besides, the **territorial cooperation programs** (including the Alpine Space Program) continue, with a principle of thematic concentration applied to all the structural funds. In the most developed regions and the regions in transition, at least 80% of the EFDR funds will be assigned to the objectives 1 "research and innovation", 3 "competitiveness of the SME" and 4 "transfer towards a low-carbon economy" ¹¹. As a supplement to the thematic approach, the programmes encourage the elaboration of "territorial integrated strategies", in particular for mountain and cross-border areas. Also, the new EU framework for Research and Innovation "Horizon 2020" might be interesting for iMONITRAF! partners. Worth more than €15 billion over the first two years, the funding is intended to help boost Europe's knowledge-driven economy, and tackle issues that will make a difference in people's lives.

Macroregional strategy

Beyond the Alpine Space Program, of which the operational program is in the course of finalization, things move forward for the **Alpine macroregional strategy**. On the occasion of the Innsbruck conference in October, 2012, the French State proposed to coordinate the three existing initiatives (Alpine Convention, Alpine Space Program and Initiative of Alpine Regions) and to make the synthesis of the 3 existing documents. It has produced an "interpellation document", prepared in dialogue with alpine States and alpine Regions, to request the support of the European Commission for the development of an alpine macroregional strategy. The European Council of December 19th and 20th asked the Commission to develop a strategy of the European Union for the alpine region until June 2015. This macroregional strategy aims at unifying the alpine space and intensifying the cooperation between the 46 regions of the massif around common challenges: economic competitiveness, sustainable development, biodiversity, transport and energy. The impulse of the European council follows an important mobilization of the stakeholders organized on Dec 17th in Brussels, in the initiative of France and the Alpine Convention.

¹¹ Among 11 thematic objectives identified by the European Commission: 1. Strengthen research, technological development and innovation; 2. Strengthen the accessibility, the use and the quality of communication and information technologies; 3. Strengthen the competitiveness of SME and sectors like agriculture, peach and fish farming ; 4. Support the transfer towards a low-carbon economy in all sectors; 5. Promote the adaptation to climate change, as well as the prevention and the risk management; 6. Protect the environment and promote the efficiency of resources; 7. Promote sustainable transport and eliminate bottlenecks in the core-network; 8. Promote the employment and support the working mobility; 9. Promote the social inclusion and fight against poverty; 10. Invest in education, skills and all-life training; 11. Strengthen institutional capacity and effective public services.

Noise pollution

The European Commission launched a **consultation on rail freight noise** between August and October, 2013. EC asked for views and ideas on :

- the extent and the causes of the railway noise problem, such as quality of wheels and rails, speed of trains etc.,
- the measures already taken to reduce or limit it, such as noise barriers, insulated windows, noise emissions standards etc.,
- the relevance of the following EU policy options: subsidies approach, noise differentiated track access charges approach, technical specification of interoperability noise approach, maintenance approach, environmental health approach,
- the focus of future policies: TEN-T network, dense zones.

Considering that policies in favour of a better acceptance of rail freight noise were part of a whole modal shift policy, the iMONITRAF! team filled in the online questionnaire and shared it with all partners.

Also, representatives of the Parliament and member states have begun on October triologue talks on new **noise limits for various vehicle categories**. The positions of the three EU institutions vary quite considerably, the European Commission's initial legislative proposal being the most ambitious (- 3,4 dB from today's levels). Member states are calling for full implementation by 2024 at the earliest, whereas the EP wants weaker limits applying by 2018. Anyway, the rules will be implemented in three stages, starting with the introduction of a new noise measurement method more closely reflecting real-world conditions. Standards for approving new models and vehicle registration would then follow.

EU emissions trading system and climate policy

The **EU emissions trading system (EU ETS)** has started as pioneer cap-and-trade system in 2005 and potential links to an Alpine emissions trading system have been discussed in several reports. Currently, the EU ETS is under discussion as over-allocation to some sectors and the economic crisis in some EU Member States have led to a drop in CO₂ prices below 4 €/t CO₂, much lower than anticipated prices for the trading period 2013-2020. Several reform options have been discussed, including a proposal to “backload” a portion of allowances by delaying the auctioning. In July 2013, the EU Parliament has agreed to temporarily postpone the auction of 900 million allowances in the ETS. This action will nearly cut in half the current over-supply of allowances and has led to an increase of CO₂ prices above 6 €/t CO₂. The proposal has been confirmed by the EU Parliament in January 2014 and can thus become effective.

EU policy makers have also discussed the way forward for the **European climate policy framework beyond 2020**. A Green Paper adopted by the Commission in March 2013 launched a public consultation on what the 2030 framework should contain. In light of the views expressed by Member States, EU institutions and stakeholders, the Commission intends to table the 2030 framework by the end of 2013. In October 2020, some leading MEPs have stated that the EU must maintain its three targets for carbon reduction, renewables and energy efficiency beyond 2020. The new framework has been presented in January 2014.

EU Air policy review

The European Commission is currently undertaking a comprehensive review of EU air policy. The European Air Quality Policy Framework has a long history and includes policies like the

2005 Thematic Strategy on Air Pollution, the National Emission Ceilings Directive, the Ambient Air Quality Directives, the EU Air Pollution Source Abatement Policy Framework, etc.

The end of the comprehensive review is expected by 2013-2014. Some measures have been completed, for instance the revision of the “Directive on sulphur content of bunker fuels”, recently adopted, and the revision of the “UNECE Gothenburg Protocol”, establishing international controls on air pollution. Others are ongoing, for instance the implementation of the Euro 6 vehicle standards in real-world driving. For the review, the European Commission is currently conducting a broad consultation process with the organisation of a series of Stakeholder Expert Groups, involving a wide range of participants from Member States, industry, NGOs and international stakeholders.

4.2.2 National level

The **Swiss** energy strategy 2050 foresees several additional measures to reach the ambitious target of a full phase-out of nuclear energy. One important pillar is the implementation of a comprehensive ecological tax reform. A detailed implementation proposal is currently under discussion. In addition, several measures in the transport sector are proposed by the Federal Council to the Parliament, e.g. the reduction of the CO₂ emission limit to 95 g/km for passenger cars and 147 g/km for light duty vehicles until 2020. Also, a masterplan “electric mobility” is being elaborated, which aims at accelerating the penetration of electromobiles into the market.

On October 21st, the **French** parliament voted for the implementation of a revisited **carbon tax** in the budget 2014, called “contribution climat énergie”. This tax will gradually increase the taxes on energy sources, according to their CO₂ content (+ 7€/ton in 2014, + 14,50€/ton in 2015 and + 22€/ton in 2016). This will lead, in 2015, to an increase about 2,9 €ct. per liter for diesel.

The measure has to yield 340 million euros in 2014, 2,5 billions in 2015 and 4 billions in 2016. Three thirds of the revenue will be used for compensating tax exemptions for business investments, whereas one third will balance the reduced rate of VAT for energy renovation and social housing. Besides, the tax exemption of biofuels will be gradually deleted by January 2016, as its environmental balance is strongly criticized. Also, the light vehicle surcharge will be strengthened from the next year, in order to balance the bonus/malus system, which suffers from deficit.

In Italy, the cooperation agreement between the regions and autonomous provinces belonging to the Po valley and the relevant national ministries is an important step forward (see chapter 3.1.5 for more details). Discussions under this agreement also focused on opportunities to transpose the Eurovignette framework into national law.

5 Networking and agenda setting in 2013

Networking with other programmes and projects

In 2013, the iMONITRAF! network has strengthened its links with the Suivi de Zurich process. The network has been invited to present its work and the strategy to the Suivi de Zurich Steering Committee in October 2013. Overall, the feedbacks from the Steering Committee members were positive and the overall direction and measures have been acknowledged. The national representatives again highlighted the fact that many measures proposed by iMONITRAF! can only be implemented on national or even EU level. It will thus be necessary to further strengthen the ties to the Suivi de Zurich process to gain support for common measures.

Also, the network has been invited to participate in the working group EnvAlp of the Suivi de Zurich process which will deal with an impact assessment of different policies and measures. The working group is led by the Swiss Federal Office of Transport and met for the second time in November 2013. It became clear that synergies between EnvAlp and the iMONITRAF! exist. Especially, iMONITRAF! can feed its experiences on monitoring into the new working group.

Rhône-Alpes follows the discussions on **macroregional strategy** and feeds iMONITRAF! results and news into the process. Currently, the three initiatives on a macroregional strategy (Alpine Convention, task force ASP, Alpine regions) are merged in one process which is led by France. Rhône-Alpes is part of the editorial board for this process and thus has direct access.

Tyrol as well as the Provinces of Bolzano and Trento are partners of the **ARGE Alp** (“Arbeitsgemeinschaft Alpenländer”) and has proposed a resolution to support the iMONITRAF! strategy. This resolution has been signed in June 2013 and thus gives further strength to the iMONITRAF! network. The ARGE Alp includes several regions of the iMONITRAF! network as well as additional regions in Germany, Austria and Italy.

Representatives of Tyrol are part of the transport working group of the Alpine Convention so that a link to this body is also guaranteed. Also, networking with the organisation “Alpen-Initiative” in Switzerland has been improved as several members of the iMONITRAF! network took part in a workshop on the Alpine Crossing Exchange in May 2013.

Also, iMONITRAF! activities and results are brought to the attention of further organisations and networks such as the European Region Tyrol-South Tyrol-Trentino and the Brenner Action Community.

Windows of opportunity to place iMONITRAF! results

On EU level, there have been few opportunities to disseminate iMONITRAF! results and ideas. However, the network has taken part in a public consultation on rail freight noise. In the frame of this consultation, it was possible to attract attention for the relevant iMONITRAF! reports and monitoring data and to illustrate the importance of limiting rail freight noise for the overall modal-shift discussion.

Also, the iMONITRAF! team has prepared an answer to the consultation on the future Alpine Space Programme (2014-2020). The experiences with setting up a political network as well as on specific transport issues could thus be brought to the attention of the programming team.

Furthermore, the iMONITRAF! synthesis report and further results have been made available to members of the Suivi de Zurich and other interested experts. Also, major results have been presented to the EU ambassadors to Switzerland.

6 Outlook 2014 and agenda setting for iMONITRAF!

On 20th November 2013, the iMONITRAF! team came together for a technical workshop to discuss first results and activities under the new organisational format and to set the agenda for 2014. The team agreed that all objectives for the Coordination Point have been met in 2013 but that new “momentum” and a new dynamics will be necessary for 2014 to sustain the pro-active role of the network.

Agenda setting for 2014

A great opportunity for political networking and for launching new topics and ideas will be the Transport Forum which is foreseen to be organised by Tyrol in early summer next year. During the workshop in Bellinzona, the partners brainstormed the following topics for activities in 2014:

- Follow-up on common measures freight transport: The common strategy of Lyon includes a proposition on several common measures. As the harmonisation of regional measures is taken forward by the regions themselves, common activities should focus on moving forward the ideas on common pricing systems and steering instruments. The strategy proposes a Toll Plus system as medium-term measure but does not include any specific details. As the idea of a Toll Plus system is also taken forward under the Suivi de Zurich process, the development of a regional statement on Toll Plus with specific design features would be one option for activities in 2014. Such a regional statement could be used for networking and lobbying activities with the Suivi de Zurich group and on EU level.
- Follow-up on common measures passenger transport: With the RouteRank platform and the project AlpInfoNet, two potential opportunities regarding have come up to move forward with the common measure “intermodal service and ticketing platform” as included in the strategy. Until the Transport Forum, the team will check specific opportunities for linking activities with these platforms.
- Follow-up on common measures for modal shift: The common strategy mentions that “push” as well as “pull” measures are necessary for an effective and sustainable modal shift. Regarding rail infrastructures and services, many barriers and problems still remain to be solved (e.g. bottlenecks in terminal infrastructures, un-harmonized regulations for rolling-stock and tracks, etc.). One opportunity for the network lies in bringing the relevant stakeholders together and in bringing forward specific solutions. This has partly been achieved by the corridor workshop in the frame of the iMONITRAF! project (2009-2012).

Transport Forum 2014 in Tyrol

Preparatory activities to organise the Transport Forum in Tyrol have already started. The partners from Tyrol have brought up the idea to link the Transport Forum with other events (relevant EU project and activities along the Brenner corridor) to create synergies and for feeding new ideas into the network. To maintain the political network, the Transport Forum will include a political roundtable discussion. Regional policy makers have not met since the signature of the strategy in Lyon so that the Transport Forum would be a good opportunity to launch new ideas also on political level.

Networking opportunities in 2014

In 2013, the Coordination Point has been successful in establishing new contacts to important stakeholders and in strengthening the existing network. Especially, the link to the Suivi de Zurich process has been strengthened. These new contacts should be used in 2014 to launch new ideas, also on the national level, and to better bring the regional viewpoint to the attention of national and EU policy makers.

Also, regarding the Alpine macroregional strategy, the network should be in close touch to ensure that transport topics will be a vital part in this strategy. Also, the experiences of the iMONITRAF! network on political networking and on “bottom-up” policy making should be made available.

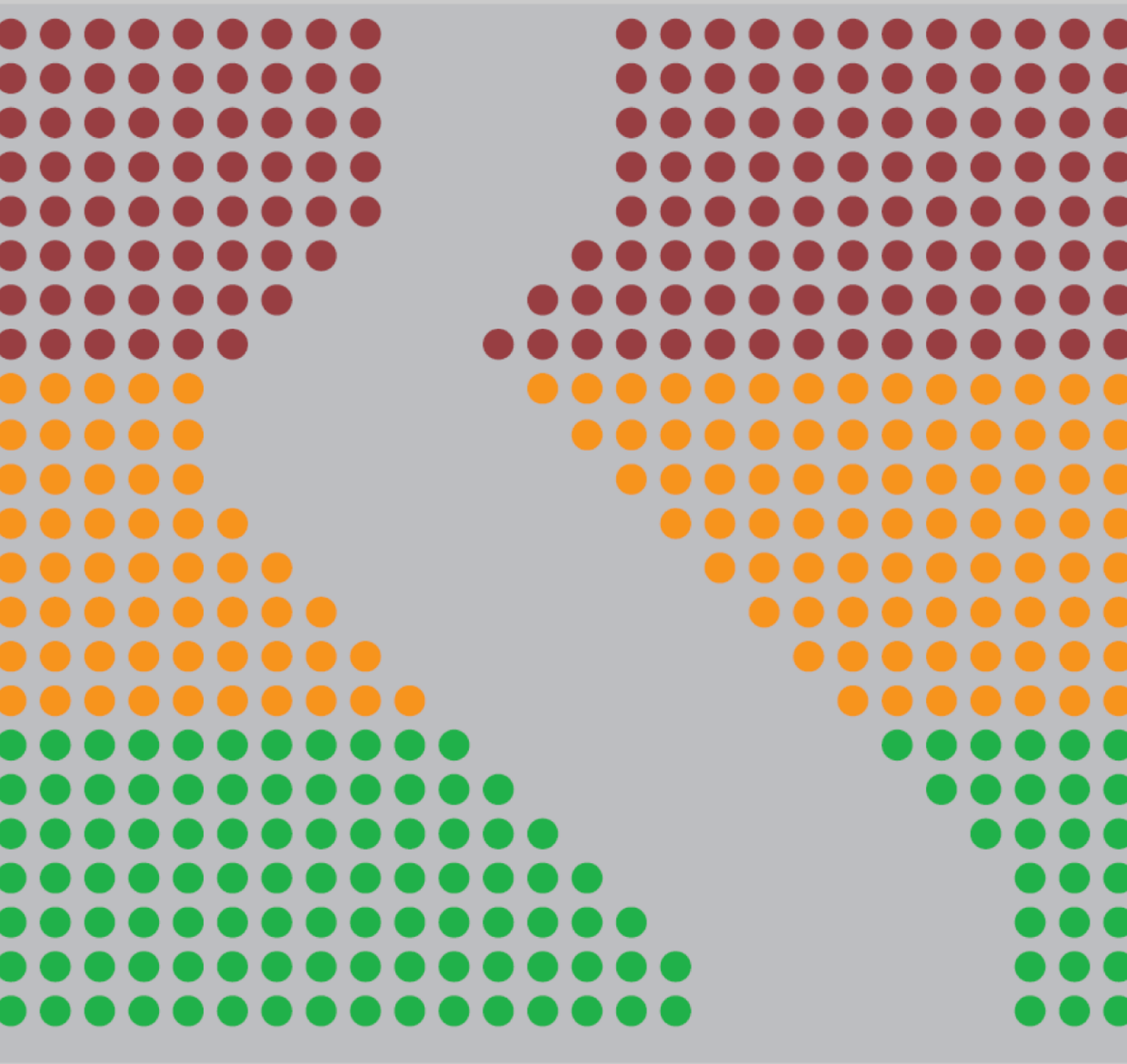
Improving internal networking in the project team

Last but not least, the year 2014 shall be used to improve and stabilise networking activities in the project team. In 2013, the team has tested the new organisational format and the challenge of operating with a much lower budget. During a feedback round in November 2013, the team agreed on some additional internal communication activities to make sure that the team is always “up to date” on latest activities, results and open tasks. With the help of a short monthly newsletter, this information exchange shall be ensured.

Also, it was agreed that the project will deliver an additional newsletter, press release or similar document for external networking to provide a second document between the publishing dates of the annual report.

iMONITRAF! Annual Report 2013

Annex – Best Practice Update 2012



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Pillar 2 – Limiting negative impacts of Alpine transport



REVISION OF THE LAW ON NOISE REMEDIATION OF RAILWAYS CH (NATIONAL LEVEL)
Objectives/intention
<ul style="list-style-type: none"> › The revision of the Law on rail noise protection supports the noise protection and remediation programme which has been implemented in 2000 (see factsheet in iMONITRAF Best Practice Guide, p. 84). › The revised law shall guarantee that the minimum objective for rail remediation measures at the source (two thirds of affected population shall be protected from rail noise) will be exceeded. This shall guarantee that an increase in rail freight transport does not lead to further noise exposure.
Main information on measure
<p>The Law foresees the following measures:</p> <ul style="list-style-type: none"> › From 2020, Switzerland will introduce noise emission standards for existing rolling stock. This implies that rolling stock with conventional grey cast iron blocks will be prohibited. › Additional noise reducing measures on rail infrastructures shall be implemented, e.g. rail noise absorbers grinding of rails. › In addition, the Swiss Confederation can support investments into innovative low-noise rolling stock as well as testing and licensing of new products. › Further, hardship cases resulting from the current law on rail noise remediation shall be removed. This includes noise barriers to close gaps in existing walls as well as the remediation of steel bridges.
Focus and scope
<ul style="list-style-type: none"> › Focus: noise protection, focusing on the source › Territorial scope: Switzerland › Temporal scope: 2020
Impacts
<ul style="list-style-type: none"> › In addition to the existing regulations, 50.000 people can be protected from rail freight noise. › The prohibition of grey cast iron blocks will lead to a noise reduction of up to 7 dB(A).
Costs and revenue
<p>Costs:</p> <ul style="list-style-type: none"> › Additional noise reducing measures on rail infrastructures: 76 Mio. CHF › Investments into innovative low-noise rolling stock as well as testing and licencing of new products: 40 Mio. CHF › Removal of hardship cases: 51 Mio. CHF
Responsibilities, legal and institutional framework
<p>The revision of the Law on rail noise protection has been passed by the Swiss Federal Council (Bundesrat) on 30 November 2013 but still needs to be approved by the Parligment.</p> <p>If the law is approved, the Federal Council will determine the emission standards for existing</p>

REVISION OF THE LAW ON NOISE REMEDIATION OF RAILWAYS CH (NATIONAL LEVEL)

rolling stock as well as criteria and preconditions for financial support.

This will be included in the Ordinance on noise remediation of railways (Verordnung über die Lärmsanierung der Eisenbahnen).

The Federal Office of Transport will be responsible for monitoring and controlling.

Implementation process

- › Drivers: in the EU, new rolling stock needs to be equipped with low-noise brake technologies since 2006. With a lifetime of rolling stock of at least 30 to 40 years, it will however take long until all rolling stock will be renewed. Thus, Switzerland foresees an additional regulation for existing rolling stock.

Sources

- › Draft version : Communication on the revision of the Federal Law on noise remediation of railways (Botschaft zur Änderung des Bundesgesetzes über die Lärmsanierung der Eisenbahnen)
- › Website of Federal Office of Transport:
<http://www.bav.admin.ch/ls/01272/index.html?lang=de>
- › Federal Office of Transport : Lärmsanierung der Eisenbahnen – Standbericht 2012.



ACTION PLAN NOISE & PACKAGE OF MEASURES FOR NO₂-REDUCTION SOUTH TYROL (REGIONAL LEVEL)	
Objectives/intention	
<ul style="list-style-type: none"> › Implementation of two different measures: Action plan (noise-sanitation plan) and package of measures that targets a reduction of NO₂-emission on motorways 	
Main information on measure	
<ul style="list-style-type: none"> › The state agency for environment defined different measures. Regarding road traffic, the noise action plan that is required by the relevant EU-Directive was developed. This action plan is a noise-sanitation plan and it was forwarded to the different responsible Italian ministries. This plan defines noise-protection measures for the regional and national road network of South Tyrol › Besides the NO₂-sanitation plan, a specific package of measure for reducing NO₂-emissions along motorways has been developed for the Italian Department of Environment. The emissions along the motorway are captured in the emissions inventory. › With regard to the noise-sanitation plan: A first agreement was established in 2003 with the RFI (Rete Ferroviaria Italiana - the Italian railway infrastructure provider). With this agreement, 8km of noise-barriers along the railway were constructed. In 2012 there was another agreement signed between the parties. However, as RFI could not fulfil their part of the contract due to financial shortages, the state instead advanced the necessary financial sum and established the noise-barriers in Maibad, close to Sterzing. 4 km of outstanding noise-barriers still needs to be installed, preparatory work is currently under way. › If new building areas are planned with a distance of less than 50 meters to roads with high traffic volumes and railways an acoustic report must be elaborated (new noise-protection law). If necessary, new measures need to be defined and implemented whose development costs must be passed on to construction costs for the new building area. › With regard to the NO₂-measurement: Monitoring stations for air quality measurements are established along the motorway (in Sterzing, Brixen and Feldthurn directly next to the motorways as well as in Bozen, Leifers, Auer and Kurtinig). Additionally, there are also "mobile stations" used that can be utilised for short-term measurements. They are first and foremost used to gather detailed information with regard to NO₂-exposure. To be even more efficient and budget-friendly there are also alternative measurement methods used such as passive samplers. 	
Implementation process	
<ul style="list-style-type: none"> › The Environmental Agency of the South Tyrolian state administration signed in December 2013 the „Accordo bacino padano“-agreement between the Alpine regions of Italy and the Italian ministries for the Po valley. This agreement contains measures to reduce PM and NO₂-emission along the motorways. 	

Pillar 3 – Modal Shift



ECOTAXE POIDS-LOURDS

FRANCE (NATIONAL LEVEL)

Objectives/intention

- › make the road users pay for investments in transport infrastructure, especially rails and inland water transport
- › price signal for changing the behaviour in favour of more sustainable modes of transport and for improving the road vehicle fleet towards lower pollution.
- › as empty trucks are also included, it gives an incentive for transport companies to rationalise routes of transport

Main information on measure

- › The ecotaxe for HGV will be implemented on national level from the 1st of October 2013.
- › The tax will be paid by the transporters, who in turn must pass on the costs to their clients by increasing the price for transportation. For pragmatic reasons, transporters will pass on the tax to their clients by applying a surcharge on the bill, depending on a regional taxation level between +1,80% and +6,30% (2,50% in Rhône-Alpes) or an inter-regional taxation level: 4,4%.
- › The tax will be imposed on freight transport on a road network composed of national and departmental roads. Both domestic as well as foreign vehicles heavier than 3,5 tons will be assessed.
- › The road network will contain 10 500 km of national roads and 5 000 km of departmental or communal roads
- › The payment system will be electronic and barrier-free.
- › Applied to the distance travelled, the taxation level is defined on the basis of the category of the vehicle (number of axles and authorized total weight of charge). It will be between 8 and 14 ct. per kilometre in 2013, and between 8,8 and 15,4 ct. per km in 2014. This taxation level is then further differentiated according to the pollution level of the vehicle (criteria are the European emission class).
- › In peripheral regions, the tax is 30% lower, and even 50% lower in Bretagne (as there are no highways).

	1st category 2 axles and ATWC > 3,5 t and < 12 t	2 nd category 2 axles and ATWC ≥ 12 t and 3 axles	3rd category 4 axles and more
2013	0,080 € / km	0,100 € / km	0,140 € / km
2014	0,088 € / km	0,111 € / km	0,154 € / km

	EURO 1 and before	EURO 2	EURO 3	EURO 4	EURO 5	EURO 6	Electric
2013	+ 20%	+ 15%	+ 10%	0%	- 5%	- 15%	- 15%
2014	+ 20%	+ 15%	+ 10%	0%	- 5%	- 15%	- 40%

- › There is a penalty for not paying the tax which can consist of up to 750 Euro

Focus and scope

- › Focus: Shift traffic from the road to more sustainable modes of transport
- › Territorial scope: France

ECOTAXE POIDS-LOURDS	FRANCE (NATIONAL LEVEL)
<ul style="list-style-type: none"> › Temporal scope: The tax is to be paid all time. The taxation level is expected to evolve each year. 	
Impacts	
<ul style="list-style-type: none"> › According to FNTR pays-de-la-Loire, a price increase of 5 to 13% in transportation might occur › The government estimates the price increase of transportation at 3,7% in average. The price increase in goods transported on roads will also amount to 3,7% which is rather low, as already today the share of transportation costs of road transported goods amounts to 10% of the entire goods price. 	
Costs and revenue	
<ul style="list-style-type: none"> › Revenues estimated at 1,2 billion Euro per year › Revenues that arise from taxation of national roads (760 Mio) will flow into the national budget and be invested in sustainable infrastructure such as rail or inland water transport › Revenues arising from departmental roads (160 Mio) will be reinvested in the respective part of the road network › Cost: 240 Mio (~ 20% of the revenue) for the management of the tax such as implementation and operation of supporting points, collection of payments, information system, etc. 	
Responsibilities, legal and institutional framework	
<ul style="list-style-type: none"> › Public-private partnership › The firm Ecomouv is charged with the operation of payment obligations › The custom is charged with the realisation of physical controls, exercise of police power and provision of information about the tax 	
Implementation process	
<ul style="list-style-type: none"> › Competitive bidding in November 2011: Establishment of an electronic payment service › Acceptance of the tender of Ecomouv. › Testing on the national level without payment in the middle of 2013 before implementation from the 1st of October 2013 	
Sources	
<ul style="list-style-type: none"> › Website of the firm Ecomouv: http://www.ecomouv.com/ › Website of the Ministry for ecology, sustainable development and energy: http://www.developpement-durable.gouv.fr/Reseau-soumis-a-l-eco-redevance.html › Website of the National Assembly: Information report: http://www.assemblee-nationale.fr/13/rap-info/i3782.asp › Fondation iFRAP: http://www.ifrap.org/Ecotaxe-poids-lourds-les-impacts-sur-l-environnement-et-l-emploi,13127.html 	

4 METER GOTTHARD RAILWAY CORRIDOR	CH (NATIONAL LEVEL)
Objectives/intention	
<ul style="list-style-type: none"> › The existing tunnel profile along the Gotthard corridor (Basel–Gotthard–Chiasso/Luino–Northern Italy) is extended to allow the passing of combined transport trains carrying vehicles with a corner height of 4 m (and 2,6 m width). › This will support the capacity utilization of the new Gotthard base tunnel and thus modal shift. 	
Main information on measure	
<ul style="list-style-type: none"> › The extension to a 4 m corridor corresponds with the European standards of the corner height profile P/C 80 which is planned to be implemented along the most important European corridors. › In Switzerland, the extension to a 4 m corridor affects 20 tunnels along the Gotthard corridor with insufficient profile characteristics. The most expensive measure is the reconstruction of the Bözbergtunnel in the Canton Aargau with estimated costs of about 350 Mio. CHF. › Also, 150 obstacles in the open country need to be eliminated. › The extension includes the financial support of measures in Italy to ensure the availability of a 4 m corridor on the Southern approach lines. 	
Focus and scope	
<ul style="list-style-type: none"> › Focus: extension of railway infrastructures, support for modal shift › Territorial scope: Switzerland and approach lines in Italy › Temporal scope: 2020/2025 	
Impacts	
<ul style="list-style-type: none"> › The extension of railway profiles to 4m corner height supports modal shift from road to rail. 	
Costs and revenue	
<p>Costs:</p> <ul style="list-style-type: none"> › 710 Mio. CHF for measures in Switzerland › 940 Mio. CHF including measures on approach lines in Italy. 	
Responsibilities, legal and institutional framework	
<ul style="list-style-type: none"> › The Federal Office of Transport is responsible for planning the necessary construction measures. A first communication regarding specific measures and financing has been developed in 2012 and has been approved by the Federal Council in September 2012. › The communication on measures and financing has been revised and approved by the Federal Council in spring 2013. 	
Implementation process	
<ul style="list-style-type: none"> › Drivers: The extension of railways towards a 4-m corridor along the Gotthard corridor supports modal shift and is necessary to fully use the capacities of the new base tunnel. › Especially in combined transport, most semi-trailers have a corner height of 4 m or slightly more. Also, containers in unaccompanied combined transport often have a corner height of 4 m. 	
Sources	
<ul style="list-style-type: none"> › Press release of the Swiss Federal Council: http://www.news.admin.ch/message/index.html?lang=de&msg-id=48937 › Verlagerungsbericht 2011 (Report on modal shift) › Standbericht 2012 Neue Alpenriversale (Monitoring report on new corridors). 	



NEW RAIL INFRASTRUCTURE ON THE BRENNER CORRIDOR TRENTO (REGIONAL LEVEL)



Objectives/intention

- › Improve the interconnection between systems in the Brenner Corridor project

Main information on measure

- › In addition to the Brenner Corridor project, an important project designed to reinforce rail transport in the province and lead to closer links between systems is being started up, in so far as this is compatible with financial resources. This project provides for four main lines, the Trento–Tione section being considered the priority, in relation to which an exchange of ideas has been started up, in preparation for the planning phase.

Focus and scope

- › Trentino is included within the Brenner Corridor and more specifically in the southern access section.



Pillar 4 – Passenger transport



REVISION OF TIROL MOBIL – MOBILITY PROGRAM TIROL (REGIONAL LEVEL)
Objectives/intention
<p>Objectives:</p> <ul style="list-style-type: none"> › The mobility program “Tirol Mobil” was founded in 2008 and brings together several initiatives for modal shift of passenger transport (public transport, cycling and walking). The program is described in detail in the Best Practice Guide (factsheet p. 119). › As several environmental objectives still need to be achieved in Tirol (e.g. air quality targets in the lower Inn valley, reduction of CO₂ emissions), the program has been revised for the period 2013-2020. › The program has the following specific objectives: increase modal shift of public transportation by 3%, modal shift of cycling by 3%, modal shift of walking by 1%. In total, modal split of car transport shall be reduced to below 50%. › The revision of the mobility program is integrated into the new „Law on Climate Protection” which also focuses on the period 2013-2020. <p>Intention:</p> <ul style="list-style-type: none"> › Apart from further increasing the modal share of public transport, the mobility program 2013-2020 puts a special focus on strengthening cycling. This shall be achieved by an extension of the cycling network. › Especially, the initiative “Gemeinden mobil” (mobility management in municipalities) shall be strengthened as distances on local level have the greatest potential for a shift to sustainable transport modes. › The program shall be better linked to EU funding opportunities, thus reducing the funding costs for Tirol.
Main information on measure
<p>The revised program focuses on the main following initiatives:</p> <ul style="list-style-type: none"> › Extension of cycling infrastructure: as more and more people use their bike to go to work (every third person in Innsbruck) and as cycling speeds increase through the use of e-bikes, the cycling network needs to be improved. › Mobility programs on local level as well as in schools and companies: these institutions have a great potential to trigger changes in mobility behaviour and shall thus be further supported in developing sustainable mobility programs.
Focus and scope
<ul style="list-style-type: none"> › Focus: Improvement of sustainable transportation of passengers › Territorial scope: regional level › Temporal scope: 2013-2020
Impacts
<p>Impacts are described in a qualitative way:</p> <ul style="list-style-type: none"> › Improvement of transport safety › Improvement of air quality › Reducing fossil energy use and thus supporting energy security › Reducing greenhouse gas emissions › Improvement of living conditions through the reduction of traffic and thus noise. › Reduction of congestion › Improvement of health through an increase of cycling and walking
Costs and revenue
<p>Costs:</p> <ul style="list-style-type: none"> › No specific information is available

REVISION OF TIROL MOBIL – MOBILITY PROGRAM TIROL (REGIONAL LEVEL)
<ul style="list-style-type: none"> › As far as possible, funding opportunities on national and EU level shall be used to reduce costs for the land of Tirol
Responsibilities, legal and institutional framework
<ul style="list-style-type: none"> › The Department of traffic planning of the land of Tirol is responsible for managing the mobility program. › In addition, a mobility committee is established as project steering group. It meets once per year and includes political representatives as well as representatives from the relevant agencies, public transport associations, school and municipal associations. › For the operational lead, a mobility coordinator will be established.
Implementation process
<ul style="list-style-type: none"> › Drivers: Tirol still needs to achieve EU air quality targets as well as CO₂ reduction targets.
Sources
<ul style="list-style-type: none"> › Land Tirol “Mobilitätsprogramm 2013-2020”

LINK BETWEEN TRANSPORTATION AND SPATIAL PLANNING TRENTO (REGIONAL LEVEL)
Objectives/intention
<ul style="list-style-type: none"> › Adoption of structural measures to contain atmospheric pollutants during the winter (Provincial Government Resolution no. 368 of 4 March 2011)
Main information on measure
<ul style="list-style-type: none"> › Measures to limit traffic [from 1 November to 31 March, from 7 to 10 a.m. and from 4 to 7 p.m., excluding Saturdays, Sundays and public holidays, for all Euro 0 vehicles, all diesel fuel Euro 1 and Euro 2 vehicles without DPF, 2 stroke scooters and mopeds). Provincial indications then imposed through municipal orders.
Impacts
<ul style="list-style-type: none"> › Estimation of the impact of road traffic in terms of emissions, through the provincial inventory of emissions (updated on 2007 [approved with Measure no. 59 of 30 March 2012], being updated as of 2010, using the Inemar method, in association with a further 8 Regions and Autonomous Provinces). Availability of data and methods (circulating vehicles, traffic flows, travel time, emissions).



INNOVATIVE MEASURES WITH LINK TO TOURISM TRENTO (REGIONAL LEVEL)



Objectives/intention

- › Increase modal share of public transport, especially for tourism transport
- › Tariff subsidies for tourists: Introduction of a tourist card with integrated microchip (was tried out during the Universiade). The purpose of such valley cards is to be able to circulate freely on all scheduled services in the province of Trento
- › In practice, the intention is that the tourist will acquire a card for a charge (direct or indirect, in the sense that it could be given to him on arrival by those managing hotels, rented apartments etc.). This will then allow her to circulate freely using all available public transport, including trains.

Main information on measure

- › Provincial Government Resolution no.964 of 2011, recently amended by Resolution no. 346 of 1 March 2013, established that as regards the question of tariff subsidies, including those for tourists (bearing in mind that in the overall context of services almost entirely subsidised and paid for by the general tax system, free or partially free services must not be translated into instruments merely transferring the cost normally paid for by users directly benefiting) any forms of free services for users paid for entirely by local authorities or area promotion bodies are not in line with the principles of fairness and efficiency.
- › Hence, to date the system of tariffs for tourist users has been regulated in such a way that it is possible to issue free tickets within a predetermined geographical area (with proposing bodies extending beyond a single municipality) for holders of seasonal cards issued to tourists upon payment, for a maximum weekly duration (which may also include other advantages), and recording of all free tickets issued by the body offering the card, with a discount of 30%; this approach can also be applied in the case of holders of cards reciprocally recognised in various situations as a result of agreements between proposing bodies.
- › As a result of dialogue with the tourist sector and with the support of the company Trentino Sviluppo spa, it emerged that it was opportune to proceed immediately with definition of an organisational model making it possible to allow valley cards to be used to circulate freely on all scheduled services, while awaiting the issuing of cards for visiting tourists valid throughout the province in 2014.
- › Provincial Government Resolution of 17 June 2013 was therefore passed, establishing that holders of specific cards can travel freely throughout the province of Trento on urban and extra-urban services provided by the company managing the service, Trentino Trasporti Esercizio Spa, in a transitory manner for 2013, integrating existing regulations.
- › To date tourist cards have been without microchip, thus not allowing tracing or automatic recording of journeys. At the end of 2013 a low cost card for tourists was tried out by exploiting the integrated electronic ticketing system on all means of transport since 2009, namely smart card readers, making access to road and rail transport, museums and authorised sites and other services available for a predetermined period of 1, 3 or more solar days from the date the card is first used. Currently tourists and visitors to Trentino are given paper cards by tourist operators which allow, among other things, free access to public transport services. At the time of boarding the user shows his card and the driver issues a ticket at zero cost. At the end of the tourist season the data regarding this type of ticket is then collected and processed, in such a way as to allow statements to be produced for tourist operators, who are invoiced for the corresponding amount, with a discount of 30%. This operational method is demanding in terms of the issuing of tickets and statements to the organisations offering the card. By introducing a card similar to the smart cards used by local users, but of a disposable nature and hence at lower cost, it is possible for the user to interact with the system without ticketing, simply by validating the journey on board. The system then automatically provides the organisation issuing the card with a report on the value of the journeys to be paid to the carriers, discounted by 30%. As regards the experimentation of forms of alternative

INNOVATIVE MEASURES WITH LINK TO TOURISM

TRENTO (REGIONAL LEVEL)

mobility in mountain and tourist areas, in addition to the 2 H₂-powered minibuses (which are costly in terms of management as well as in relation to initial investment) 6 hybrid vehicles have been purchased (and tested during the 2013 World Championships in Fiemme and which will be used in a similar way in a few days for the Universiade), with relative monitoring of environmental data and consumption. Once results have been obtained as regards the consumption of hybrid diesel-electric vehicles, but also of the methane-fuelled buses already operational, an increase in their use will be evaluated. This will probably lead to the implementation of a methane-fuelled fleet, which has a cost /km of 0.30 euro/km as compared to 0.70 euro/km for traditional diesel fuel and 0.50 for the hybrid diesel-electric vehicles.

Focus and scope

Concrete examples of action:

- › development of forms of integrated road-rail mobility: Pinzolo-Campiglio cable car link (2012) and the creation of car parks at the terminus in Pinzolo, with a consequential reduction in road traffic;
- › integration of cable car systems with the panorama pass in the Val di Fassa; an example also followed in the Val di Sole and Rendena – Campiglio, with the objective of speeding up mobility using cable car transport and reducing flows of road traffic. This form of integrated cable car-rail mobility has been specifically developed: Dolomiti express: cable car holding 8 people linking the Folgarida-Marilleva ski area directly with the platform of Daolasa-Commezzadura railway station, without any change in level between the railway station and the cable car boarding area;
- › Memorandum of Understanding (July 2013) aimed at promoting and incentivising alternative forms of mobility in the upper Valle di Non, through reinforcement of the Caldaro – Mendola funicular railway, the public transport service for Mendola – municipalities in the upper Valle di Non and by linking Mendola to golf courses using transport not creating pollution (horse-drawn carriages, bicycles);
- › mobility services within individual tourist areas managed by municipalities, valley communities, tourist offices or consortia of tourist operators.
- › free ski bus service almost everywhere in all ski resorts in the province in the winter season;
- › “ski shuttle” service from strategic points of access for tourists, e.g. in summer and winter the Madonna di Campiglio-Pinzolo-Val Rendena tourist office offers a daily 24h transfer service linking the airports of Milan Malpensa, Milan Linate, Venice, Bergamo, Verona, Brescia, Bolzano and the railway stations of Trento and Bolzano directly to hotels;
- › Guest Card: Card inaugurated in June 2013, allowing holders to use the network of urban and extra-urban public transport of Trentino Trasporti and Trenitalia within the province and obtain free entry to numerous attractions present in the province: museums, castles, nature parks, spa centres etc. The cards, which are valid for a maximum duration of 20 days for the nominated holder alone and cannot be used by others, are given to guests by the managers of accommodation facilities participating in the project. In the first two months of the project around 50,000 were distributed, with the participation of around 300 operators. The card brought together numerous similar initiatives already adopted in the area in the last few years, allowing guests to use transport networks and visit tourist attractions present in the respective areas.

Costs and revenue

- › Using hybrid diesel-electric vehicles and also an increasing amount of already implemented methane-fuelled buses will lead to the implementation of a methane-fuelled fleet. This has a cost /km of 0.30 euro/km as compared to 0.70 euro/km for traditional diesel fuel and 0.50 for the hybrid diesel-electric vehicles.

INNOVATIVE TRAFFIC MANAGEMENT FOR BIG EVENTS TRENTO (REGIONAL LEVEL)



Objectives/intention

- › Making use of ecologically innovative vehicles for big events in the Alpine Space.

Main information on measure

- › During the 2013 Nordic World Ski Championships in the Valle di Fiemme the standard ski bus service in the valleys was supplemented, making use of ecologically innovative vehicles. Specifically, two hydrogen powered buses were adopted experimentally in the period from 20 February to 3 March 2013. The two buses covered an average total of 366 kilometres a day, without particular difficulties or problems.
- › Furthermore, six 12 metre diesel-electric hybrid buses for urban use came into operation during the event, with their use then continuing in the context of standard urban services.

Focus and scope

- › During the winter Universiade, which took place in the period from 6 to 21 December 2013, dedicated services were organised for around 3000 athletes and those accompanying them, for arrivals/departures at airports, transfer of the delegations to the 5 clusters, the inauguration ceremony on 11 December and competitions/training sessions (with organisation of a "line" to guarantee transfer to and from competition/training sites using urban bus services).
- › For the "public" it had been decided to offer "free" use of standard scheduled services for accredited parties (volunteers etc) through allocation of electronic cards.

Impacts

- › The ecologically innovative vehicles are offering savings in terms of consumption and a reduction in emissions



USE OF INNOVATIVE TECHNOLOGIES FOR PUBLIC TRANSPORT TRENTO (REGIONAL LEVEL)

Objectives/intention

- › Technological innovation for the bus fleet

Main information on measure

- › In the last five years, considerable attention has been paid to technological innovation in terms of the fleet of buses.
- › In particular, two electric minibuses fuelled by hydrogen fuel cells were introduced in 2013, commissioned by Trentino Trasporti.
- › The development of the project and experimentation of the 2 electrically powered fuel cell minibuses in the field represents one of the numerous actions started up by the Autonomous Province of Trento with the long-term objective of providing for sustainable development in Trentino.
- › The initiative falls within the context of measures oriented towards the achievement of the objectives of the 2009/28/CE European Union Directive, which establishes the targets known as “20-20-20”; a reduction of 20% in primary energy consumption, a reduction of 20% in greenhouse gases and 20% of energy consumption to be met by renewable sources.
- › In this context, the use of “ZERO” emission buses for routes in the Dolomites within the UNESCO World Heritage site represents a cutting edge project, which will be completed with the subsequent design and construction of a production system based on the use of new renewable energy.
- › The project is also part of an overall plan that Trentino Trasporti, the company managing the infrastructures and transport of the Autonomous Province of Trento, began implementing some time ago, for both the creation of industrial systems with low energy consumption and the purchasing of last generation rolling stock, such as 6 diesel-electric hybrid buses.

The following services are currently offered:

- › train +bike on the Valsugana and Trento Malè railway lines, as well as on the Brenner service;
- › bike and bus services in some tourist areas, to improve access to the circuit of cycle routes (for example from Comano to Tione - Rendena cycle route – or towards Sarche – Valle dei Laghi cycle route)
- › limitations on motor vehicles in park areas, with provision of bus services for access to areas considered to be of value from the naturalistic point of view and at the same time unable to support an excessive human carrying capacity (for example Lake Tovel, Valsinella, Val Genova etc.);
- › agreement with Deutsche Bahn (which offers six return journeys to and from Munich along the Brenner axis). Tourists arriving by train are provided with a transfer service from the station of arrival to the accommodation facilities, along with a card offering access to all public transport services and the main attractions in the area;
- › free fly shuttle from Verona airport to the main tourist destinations in the province.

Focus and scope

- › The project is also part of an overall plan that Trentino Trasporti, the company managing the infrastructures and transport of the Autonomous Province of Trento, began implementing some time ago, for both the creation of industrial systems with low energy consumption and the purchasing of last generation rolling stock, such as 6 diesel-electric hybrid buses.
- › The technology adopted for the new minibuses, described as dominant fuel cell, is powered by an electric motor, to which energy is supplied by the fuel cell system, capable of transforming hydrogen gas stored in special containers into electrical energy with

USE OF INNOVATIVE TECHNOLOGIES FOR PUBLIC TRANSPORT TRENTO (REGIONAL LEVEL)

a process of oxide reduction (no combustion). Furthermore, the system allows the kinetic energy of the vehicle to be exploited to recharge the auxiliary lithium batteries during braking.

Impacts

- › The adoption of hydrogen fuel cell technology indeed makes it possible to overcome some of the technical limitations of “traditional” battery powered systems, such as long recharging times, for example (it takes around ten minutes to fill up with hydrogen), performance depending on battery charge and external temperature, and lower autonomy in terms of kilometre range.

Costs and revenue

- › The two new minibuses represent the technological excellence of the circulating rolling stock: what is more, in November 2012 new hybrid vehicles were presented in Predazzo.
- › Overall, in numerical terms, 464 and 233 vehicles respectively were used for extra-urban and urban services.
- › As regards the average age of the circulating fleet in 2012, the buses were on average 9 years old (extra-urban Euro 5 EEV vehicles arrived at 21%, definitively eliminating Euro 0 vehicles and reducing class Euro 1 vehicles to 1%)
- › The average age in 2013 will be around 10, with the introduction (pursuant to expenditure of 3.5 million euro allocated for the current financial year) of 9 urban buses and 8 inter-urban buses, all EEVs.
- › The 233 urban buses are used for services in the municipalities of Trento, Rovereto, Pergine Valsugana (started up in 2008) and the upper Lake Garda area (considered as urban services starting from 2008). Urban transport also includes transport related to tourism in different municipalities in Trentino. The relevant local authorities provide for the funding of urban transport, using the transfers for this scope provided for by local funding and their own additional resources.
- › The data recorded for the 2005-2011 period show an increase in expenditure in real terms (calculated by applying a deflation index to the amounts effectively funded) and an increase in the number of passengers. Indeed, expenditure went up by 37.5% in the period in question, with an average annual increase of 5.6%. In the same period, the increase in the number of passengers was 30%, with an average of 4.5% a year, the number of kilometres funded being essentially unchanged. The ratio between passengers and km oscillated between 3.1 and 4.
- › The 464 extra-urban buses are used for transport services outside the main towns, services which saw an increase in the number of kilometres covered (1.8% in the 2005-2011 period) and the number of passengers (nearly 12% over the whole period).

Responsibilities, legal and institutional framework

- › The implementation of the project has been supervised and developed by Dolomitech S.r.l., a local start up company with its headquarters in Villa Agnedo, in the Valsugana, while hydrogen supplies have been organised at a pilot station set up in Panchià. Furthermore, the initiative is technologically linked to the Green Corridor project, which provides for hydrogen supply systems for the Brenner axis, also serving the private transport sector.



MEASURES TO INCREASE ATTRACTIVENESS OF RAIL TRENTO (REGIONAL LEVEL)	
Objectives/intention	
<ul style="list-style-type: none"> › Funding contribution included within the provincial budget, considering progressive activation/replacement by the Province in the planning and funding of local railway services, according to the implementation rules (D.P.R. 587/87, supplemented by D. Lgs. 174/2001). 	
Main information on measure	
<ul style="list-style-type: none"> › Railway transport includes transport provided along the Valsugana line, partly with trains owned by Trentino Trasporti S.p.A (10 out of the 15 'Minuetto' trains in operation), funded by the Province, and along the Brenner railway, falling under the jurisdiction of the province, operated according to an agreement with Trenitalia spa (over time APT has added around a further million km to the 1,389,000 km/year covered, previously under 'state' and now "provincial" jurisdiction as a result of the framework agreement on transfer in 2006). The data therefore show a major increase both in terms of kilometres covered and the relative funding contribution included within the provincial budget, considering progressive activation/replacement by the Province in the planning and funding of local railway services, according to the implementation rules (D.P.R. 587/87, supplemented by D. Lgs. 174/2001). › Considering the cost of the local railway service (currently 30 million euro a year in favour of Trenitalia), a series of studies on "self-production", led the relevant department to instruct the company managing the service to obtain ANSF certification for railway companies operating on the national network. 	
Focus and scope	
<ul style="list-style-type: none"> › As regards the number of passengers, the major increase recorded in 2007 (from 1,261,000 to 3,108,000) was a result of the introduction of clock-face scheduling in the Valsugana, with a doubling of passengers/day for this stretch, whereas the increase in 2008 can be justified by the clock-face scheduling introduced on the Brenner line in December 2008. 	
Costs and revenue	
<ul style="list-style-type: none"> › Considering the cost of the local railway service (currently 30 million euro a year in favour of Trenitalia), a series of studies on "self-production", led the relevant department to instruct the company managing the service to obtain ANSF certification for railway companies operating on the national network. 	
Implementation process	
<ul style="list-style-type: none"> › Obtaining the ANSF certificate took place in April 2013, a result which must be considered the main innovation, due to important financial and service repercussions in the last five years, also with the starting up of the railway service in May 2013, which will be progressively extended until 2014, with Trentino Trasporti Esercizio spa supplying half the service on the Valsugana line. 	

NEW INFRASTRUCTURE FOR NON-MOTORISED TRAFFIC TRENTO (REGIONAL LEVEL)

Objectives/intention

- › Planning and design of a pedestrian and cycle route network

Main information on measure

- › In the province of Trento an office dealing with the planning and design of the pedestrian and cycle route network has been set up to coordinate planning activities, works management and maintenance. Promotion of cycle and pedestrian routes at important national and international events has also been started up and new projects have been approved. There are around 300 Km of cycle routes distributed throughout the province.

Implementation process

For the promotion of the cycle routes the following purposes are available:

- › cycling guides: containing useful information for organising biking excursions in Trentino and representing an effective way of getting to know the area better;
- › ecological counters: these are devices acquiring data on cycle traffic, through a system of sensors positioned along the routes;
- › more gardens, fewer roads: along the cycle routes green areas have been extended, to create increasingly pleasant itineraries, separate from the usual routes along roads;
- › 'bicigrill' refreshment areas: facilities are made available along the cycle routes providing information, support and a refreshments area. At the 'bicigrill' there is a stop-off area with tables and benches, an area providing refreshments, a small workshop, a bathroom and a small storage area.



THE “SOUTH TYROL PULSE”	SOUTH TYROL (REGIONAL LEVEL)
Objectives/intention	
<ul style="list-style-type: none"> › Bus and railways should become a real alternative for car users for a wide range of target groups 	
Main information on measure	
<ul style="list-style-type: none"> › Pre-conditions are that there is an appropriate supply of modern, environmental-friendly means of transport. On the other side the travel times must match consumer demands and they must therefore be easily memorable and well synchronised. To support modal shift to public transport, the project “South Tyrol Pulse” (Südtirol-Takt) is on good track. The main elements of the project are the following: Trains should operate as “back-bone” in local public transport with hourly and half-hourly connections between the most important routes between the heavy traffic junctions. Additionally, a concentrated supply of these services should be available during peak times. These elements are included in an overall concept that contains four pillars: <ul style="list-style-type: none"> • Synchronisation of the system: Overall concept – Integrated and synchronized timetable • Attractive supply: Modern rolling stock, vehicle fleet on cutting-edge, user-friendly (bus) stops and railway stations, cleanliness, punctuality and security • Customer orientated tariff system: Commuters, pupils, students, seniors, families and groups, day-trippers etc. • Easy and comfortable access, all-round service: Sales network, dynamic customer information with regard to arrival- and departure times, Stylingbook as well as central contact point “Info mobility” 	
Focus and scope	
<ul style="list-style-type: none"> › The challenge that exists is the coordination of the various connections in the region. These various connections must be coordinated and synchronised. In terms of the bus connections there are in total 99 over-land lines, 22 city lines , 19 city-busy lines and 438 special student-services › The train connections comprise regional trains (half-hourly and hourly running trains on lines), express trains or international trains as well as around 200 cargo trains (these are running on different days respectively and within different time stages). 	
Impacts	
<ul style="list-style-type: none"> › Within the time frame between 2008-2013 (Effective: 30th of July 2013) the following can be listed: The railway kilometres were increased from 2.8 up to 5.99 million kilometres and the bus line kilometres were augmented from 22.1. up to 31 million kilometres. Since 2006 there was a tripling of customers (more than 1 million customers a year) on the Pustertaler train. Since 2005, in total 42 railway stations and train station areas have been modernised. › The vehicle fleet has also seen a comprehensive modernisation: 50% of the buses were replaced by new buses since 2005 (in total: 360 new buses) › With regard to local guest cards, in total more than 600.000 mobile/museum mobile/ bike mobile cards were activated. More than 70.000 students and 60.000 seniors are riding public transport for free since 2008. Before, there were only around 5000 abo-users in each of the two categories. › To further develop public transport in South Tyrol an increase in the use of new trains should occur from 2013/2014. New stops and connections are currently planned. The new stop “Bruneck Nord” was introduced in September 2013. The new stop “Kaiserau” close to Bozen was activated in December 2013 and started with an hourly connection to Meran-Bozen-Brenner. › The new “FLIRT”-trains were delivered in Autumn 2013. With their introduction there are greater opportunities for border-crossing railway services (Doublestream). From De- 	

THE “SOUTH TYROL PULSE”**SOUTH TYROL (REGIONAL LEVEL)**

cember 2013 on there is the connection between Bozen-Innsbruck without the necessity to change trains at Brenner.

- › The building of the new stop „Vierschach“ in Pustertal and its activation is planned for Autumn 2013. The redesign of the railway station “Innichen” with a respective master-plan for relocation was developed and tendered.



Pillar 5- Innovative Approaches



AGREEMENT BETWEEN THE REGIONS AND AUTONOMOUS PROVINCES OF NORTH ITALY AND FIVE ITALIAN MINISTRIES (REGIONAL AND NATIONAL LEVEL)

Objectives/intention

- › Programmatic agreement for a coordinated and mutually conducted implementation of measures that enhance air quality

Main information on measure

- › Previous experiences have made clear that it is difficult for a single region or province to enforce effective air quality measures, especially to curb NO₂ emissions along motorways. A common approach of the actors in the wider area of the Po valley in Northern Italy might bring synergies and would improve the situation.
- › The programmatic agreement „Accordo di Programma per l'adozione coordinata e congiunta di misure di risanamento della qualità dell'aria” for the coordinated and mutually conducted implementation of measures for enhanced air quality is an agreement between the regions Piemonte, Veneto, Emilia-Romagna, Lombardia, Valle d'Aosta, Friuli Venezia Giulia as well as the autonomous provinces Trient and Bozen and five ministries (ambiente/environment, sviluppo economico/economic development, trasporti/transport, agricoltura/agriculture, salute/health).
- › With regard to fine particles there occurred no exceedance of the threshold value in South Tyrol. However, the nitrogen dioxide (NO₂) problem is of interest in this region. In the cities of Bozen and Brixen and especially along the motorways, there exist party strong exceedances of annual threshold values. Any form of sanitation of motorways that could minimise emissions of air pollutants were not conducted by the respective Italian ministry so far.
- › The state requirements prescribe that for measures that are of state competence (regolamentazione circolazione su autostrade – Regulation of traffic on the motorways) which could improve air quality, the implementation of a committee on the Presidenza del Consiglio dei Ministri (president of the cabinet) level can occur on request. This committee will identify the measures that need to be implemented. The autonomous province has - in consultation with the A22, the affected municipalities and especially Bozen and Brixen here – already announced interest in such a committee in 2011. However, so far no such a committee was established.

Focus and scope

- › On state level, the environmental certification for small-scale wood-firing plants, a re-definition of emission threshold values for biomass power stations, the financial support for new technologies, materials and fuels should in future also incorporate targets to improve air quality. Additional measures with regard to energetic sanitation of buildings, adaptation of funding for the energy products that emerge out of biomass and an adaptation of the in the street codex incorporated directive „Piani urbani di mobilità” – mobility plans for cities are in planning. Besides, also a realignment of the speed limit on motorways and on great traffic axes, a common regulation for traffic restrictions and the funding of electric vehicle and hydrogen vehicles should occur.
- › The regions and provinces compel themselves to implement the listed measures on local level. This takes also place within the respective air quality plan. Additionally, the actors are obliged to participate at the working group meetings. In this regard, the exchange of information and the coordination between the participants can be intensified.