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Editorial

Developing a role for IMPACTS

At the end of the successful IMPACTS conference in March 2007 the presidency of IMPACTS transferred from Keith Gardner of Transport for London to the City of Zagreb. I am grateful to Keith for his efforts during his year in office which has seen the association move forward to take a more active role on behalf of members and his efforts in seeking to expand our membership across a growing EU.

There is a report on the London Conference in this Newsletter, so I will not dwell on it here. It did, however, set a high standard for presentations, debate and hospitality which we aim to match during our own conference in Zagreb 8-9 May 2008.

We continue to look for network opportunities and encourage other cities to join us. With this goal in mind we have decided to focus our 2008 conference in Zagreb on "New mobility requirements within existing and expanding urban fabric". The theme offers wide scope for an exchange of experiences on topics such as Integrated Transport, Urban Development, Regeneration, Parking and Sustainability.

IMPACTS continues to develop its role as a key voice for cities in policy areas, particularly with the European Commission. During the year IMPACTS has joined with Polis, CEMR, Energie-Cités, EUROCITIES and UITP in sending a joint letter to Jacques Barrot, European Commission Vice-President with responsibility for transport, on the forthcoming Green Paper on Urban Transport. The letter welcomed the Commission's Green Paper and coordinated action on urban mobility, noting that European cities, regions, transport authorities and operators should be closely involved in the definition of this Green Paper and the resulting Action Plan.

Another example of member activity is the intention of several cities to band together, under the IMPACTS umbrella, in a project under FP7 where cities can exchange experience and demonstrate best practice in mobility management for big events.

Finally, let me extend a personal invitation to our 2008 conference, and if you are a new reader to encourage you to consider the substantial benefits of joining our network.

President IMPACTS



Slavko Dakic - City of Zagreb

Vice-President IMPACTS



Maria Krautzberger - City of Berlin





London Conference

The effect of transport and mobility in cities on the environment and climate change, 28-30 March 2007

The 2007 conference - the organisations 11th Annual European Conference - focused on a theme that is of great importance to all our cities, as we seek to reduce our environmental impact, not just locally but also globally in terms of carbon emissions. It was encouraging to see representations from 11 of the 13 IMPACTS member cities and also to see representatives from Lisbon and Warsaw.

Welcome to London

Nicky Gavron, Deputy Mayor of London gave a warm welcome to delegates on behalf of the Mayor. She went on to discuss how London is dealing with the issue of climate change which is now the overriding political priority. The reality is that today's climate change is the result of CO2 emissions over many decades which have increased dramatically over time. In the 1950's a year's oil use was equivalent to 6 weeks demand today. Ignoring the environmental challenge is not an option.

Cities consume 75% of world's energy and are very vulnerable to the effects of climate change. Cities are therefore uniquely placed to influence this issue.

Reducing London's environmental footprint was an aim from the beginning of London's Assembly. This is being coordinated through the London Plan which pulls together land-use transport policies. London has sought to reduce the need to travel whilst offering a choice of modes, including walking and cycling. It has invested heavily in buses (including new cleaner technologies) to the extent that it is now an accepted mode. Combined with congestion strategies and travel demand management measures London has achieved the fastest shift from car to public transport of any urban area. These steps will be further supported by Low Emission Zones and road pricing.

Aviation apart, transport accounts for only 22% of London's emissions; the majority comes from buildings. London's climate change action plan therefore sets out a comprehensive range of policies to address more than just transport related issues.

London has set itself a target of reducing CO2 to 60% of the 1990 levels by 2025 target. This is far tougher than the national target.

Everything done in London has been learned from other smaller cities. It is now working with 40 cities to create a club to make acquisition of technologies more affordable.

Initiatives in London

Mark Evers from TfL opened the debate with a presentation covering London's climate change action plan. This approach to tackling climate change has established a baseline for London's 1990 and 2006 CO2 footprint, identified the reductions needed for the city to play its part in stabilising global temperatures, defined how London can deliver on the targets and identified the costs and benefits.

Mark pointed out that ground based transport only accounts for 22% of London's emissions, and almost half of this comes from cars and motorcycles. London is aiming to achieve a 60% overall reduction from today's 44.3m tonnes of CO2 emissions by 2050. A Green Transport Programme is therefore one of four initiatives to achieve the goal of London's Action Plan. It aims to change the way people travel, improve the operational efficiency of vehicles and promote lower carbon vehicles, infrastructure and fuels. TfL is seeking to encourage a shift from the car to public transport and is also promoting more walking and cycling trips. Travel Demand Management is being used to demonstrate how smarter travel can reduce CO2. TfL is also investigating increases in the Congestion Charge to encourage a shift to lower emission vehicles.



Michèle Dix continued the debate with a presentation on London's congestion charging and low emission zones as an example of what charging can do for the environment. The London scheme has a flat charge (£8 per weekday) with exceptions for residents and low emission vehicles. It operates through automatic number plate recognition avoiding a need for physical barriers. The original central zone has now been expanded to the west to take in London's second most congested area. Charging initially

brought about a 30% reduction in congestion, lower accident rates and increased bus reliability and patronage. It also made a large contribution to reducing emissions. Initial evaluation of the Western Zone extension indicates that traffic speeds have increased, vehicle numbers are down and no problems have been reported for the surrounding areas.

The Mayor has initiated a consultation on emissions based charging, using the policy to encourage drivers to switch from high emission vehicles (or pay a greatly increased fee).

London's Low Emission Zone (LEZ) covers all of Greater London and is designed to discourage the use of highest polluting vehicles in the city. They are not banned, but must pay a charge (eg £200 day for lorries, buses and coaches) if they cannot meet emission standards. The LEZ is expected to provide a range of health benefits, reduce the number of areas that have poor air quality and noise reductions.

Closing the first session Mike Weston gave an informative presentation of the impact of London's buses on the environment, highlighting the measures being taken to reduce impact and improve air quality. With a fleet of almost 8,000 vehicles, a 40% growth rate in trips since 1999/2000 and 1.8 billion passenger trips in 2005/6 the bus operation is a major undertaking.

TfL are addressing three environmental priorities related to bus operation: Climate change through CO2 emissions, Air Quality (PM10, NOx and NO2), and Noise and vibration from buses. Bus and coach emissions in 2005 were small in comparison to Car (the most polluting) and Freight vehicles. However, buses are the largest contributor to TfL's CO2 footprint at 40%, producing 682,000 tonnes of CO2

emissions produced per annum.

Environmental improvements have been driven by the Mayor's Air Quality Strategy. This has led to development of a London bus specific emission tests protocol to evaluate new fuels and technologies before they enter the fleet. As a result all 8000 buses met the minimum of Euro 2 emission standards in December 2005. By December 2005 all buses were fitted with a particulate filter and fleet emissions were reduced by approx 90% compared with 2000 for PM10, hydrocarbons and carbon monoxide.

In the short to medium term the focus will be to introduce diesel electric-hybrid technology. The long term strategy is to move towards hydrogen and fuel cell technology. The intention is to introduce 50 - 60 hybrids by end 2008 from various manufacturers, with a further 800 vehicles by 2012 after which all new vehicles will be hybrids.

Fuel technologies have been trialed, including diesel-electric hybrids and hydrogen-powered fuel cell technology. Initial trials of Water Diesel Emulsion (WDE) were promising, but technical problems occurred on Euro III vehicles. A short trial of Gas to Liquids with Shell using articulated Citraro proved successful and Shell are now developing production capability. LPG emissions tests have shown a 30% reduction in NOx, but virtually no change in CO2. Fitting NOx abatement technology to vehicles has seen NOx emissions reduced by up to 65% with no increase in greenhouse gas emissions.

Six single deck diesel-electric hybrids from Wrightbus were introduced in March 2006. The Vehicles are a 'series' hybrid, powered by 336 volt battery pack and 1.9 litre diesel Euro IV engine that have delivered a 38% reduction in CO2 and 89% reduction in

NOx. The first double deck hybrid entered service March 2007.

TfL have completed a three year trial of running three DaimlerChrysler fuel cell buses in service as part of CUTE/Hyfleet:CUTE project part funded by EC. The main limitation is the high fuel consumption and range of the vehicles. The next generation vehicle will address this through hybridisation.

London Buses has formed a Hydrogen Bus Alliance with other cities interested in procuring hydrogen buses. Seven cities/regions have signed a MoU, but others have expressed interest in joining and new members are welcomed. The alliance aims to share knowledge and information especially with regards to the procurement process; give a clear signal to the market that there is demand for hydrogen buses; work with the hydrogen bus industry to develop a pathway towards commercialisation; and achieve economies of scale where possible through co-ordinating procurement programmes.

City Perspectives

In the second session the conference moved on to discuss other city perspectives with contributions to the debate from Barcelona and Paris. Julio García opened the discussion with his presentation of environmental aspects of Barcelona's Mobility Plan for 2006 to 2018. The plan draws together objectives from the Kyoto Protocol, European, national, regional and municipal initiatives. Julio, with input from transport observatory studies, looked at the tendency to use public transport, private car and foot and bicycle. He concluded the trends were not sustainable as they are projected to lead to a quarter of trips experiencing 90% congestion. To maintain current congestion levels

about 525,000 car trips would need to be moved to public transport.

Claude Dargent contributed to the debate with a perspective from Paris. Congestion is common on many roads and road transport produces 30% of the CO2 emissions. To address this a series of transport masterplans have led to the current 2007 Paris Plan. The plan assumes mobility is a right for everyone, but still aims to deliver a 25% reduction in CO2 emissions by 2013 in comparison to 2001 and 60% by 2020. Similarly, a high target for air quality has been set. These targets mean a reduction in traffic of 26% by 2013 and 40% by 2020. Realisation has meant development of alternatives to the car, including more public transport and more soft transport modes such as walking and cycling. Street landscaping and traffic regulations are also being used to encourage such changes. Parking zones have contributed, encouraging residents to leave their car at home, and car sharing has also been a success. All this has led to some positive results being achieved with traffic levels down 17%, without reducing mobility, and CO2 cut by 9%.

Environment and Mobility

In the third session the focus changed to Environment and Mobility drawing on contributions from Friedemann Kunst on Plans for Berlin's environmental zone followed by a review of strategy reports on environment, energy and resource issues from Robert Stussi.

Friedemann drew attention to Berlin's initiative to create an environmental zone as a means of addressing pollution and climate change issues and increasing the quality of life for residents. The scheme will rely on simple coloured badges (applied nationally) to identify which vehicles are the most polluting from 1/1/2008. Only green badge vehicles will be

allowed into the city. Vehicles with no sticker, or the wrong colour, will be fined. Around 15-20 cities in Germany will have similar zones, so the majority of German vehicles will have the appropriate sticker. The scheme will also be supported by encouraging more use of bicycles, stricter parking regulation and redirection of through traffic.

The environmental zone initiative is just one building brick in an integrated urban transport environmental policy and follows the concepts set out in the EU Green Paper on Urban Mobility.

Roland Rydin commented that such schemes have been a success elsewhere, for example, Stockholm and Malmo have had environmental zones since 1996. Stockholm's zone is 25km² and has achieved over 50% reduction in particulate matter.

Robert Stussi added to the discussions with comments and thoughts on several national and European reports that set out visions and strategies on environmental issues. We are used to land-use masterplans with clear boundaries, but now we are faced with issues such as pollution that does not respect boundaries and solutions like congestion charging that can be implemented nationally.

He took an example from the World Business Council for Sustainable Development who have not only performed a retrospective study, but looked forward to 2030 and 2050 with their pathways to energy and climate change. To get energy consumption down the forecasts rely on dramatic reductions in car use and air travel. But changing behaviour will be very difficult. Only about half the world's oil reserves remain whilst usage is going up very fast and new discoveries declining.

He asked who the stakeholders are creating these visions - more and more the forecasts and visions come from the private sector. Robert suggested there is a need to link long term vision with short term action. As society becomes more mobile, can technology advances resolve everything and balance the equation?

Action Plans for Transport

Day two began with a session dedicated to action plans for transport which deal with the challenge of environment and climate change. Fabio Nussio provided an overview of Rome's Action Plan to achieve the Kyoto Protocol, whilst Antonio Hodgers addressed Agenda 21 and its impact on transport planning.

Fabio introduced ATAC's role in the ROMaPerKYOTO project which is creating an Action Plan that defines the initiatives to be implemented in order to reach the goal of a 6.5% reduction in greenhouse gas emissions (as set for Italy) by the year 2012 compared to emissions in 1990.

In Rome 34% of CO2 emissions come from transport. To tackle this problem the city is using a combination of traffic demand management measures (Urban traffic Masterplan, PT priority, access limitations, area pricing) and developing new "Hard" Mobility Infrastructures (Underground and Urban Rails). The PT fleet is also being renewed with lower emission vehicles whilst technologies and ITS is being deployed to manage, monitor and enforce actions. Sustainable mobility is also promoted through car sharing, car pooling, soft mobility measures, etc.

The efforts have already begun to reduce emissions in Rome since 2003, but they remain far from the Kyoto objectives for 2012.

Antonio offered an interesting

perspective on the impact of transport laws on the environment. There are federal laws in place to deal with noise, air quality and CO2 emissions. These set objectives (eg noise levels in urban areas) and timeframes. The city has set a target of 10% reduction in CO2 in line with Kyoto agreement. To realise targets Geneva has established a number of actions for eco mobility, including introducing more trams to compensate for traffic reduction measures. In respect to air quality the city monitor the situation and notify the media of days when air quality is poor. If it gets worse traffic speeds are reduced and ultimately circulation of traffic into the city is limited to alternate days (based on vehicle number plates), though this has not occurred yet. Like Berlin there are environmental badges for vehicles which can be used to limit access to the city.

He stressed there is a global challenge to counter CO2 and climate change. Setting local objectives in respect to air quality and congestion can make a contribution.

Roundtable Discussion

The conference concluded with a lively roundtable discussion chaired by Julio Garcia Ramon that ranged over all the issues brought forward by the previous speakers.

Delegates noted that we have all identified targets and provided very good baseline statistics on pollution and congestion. It is now important to develop ways of achieving these very

ambitious goals. We all have a common objective and a common understanding. All of our cities have decided to act to reduce global warming. No one is in doubt about the Koyoto objective. We have each used different tools to achieve these goals, including:

- Regulations - Berlin, Rome - environmental zones with limited access on classification of pollution.
- Tolls - London, Stockholm - road pricing and congestion charging - reduces congestion and funds public transport improvements.
- Sharing public spaces - making less room for cars and more for less polluting modes. Geneva - new tram routes at the expense of cars. Reduced noise and pollution similar to Paris, and protected lanes for cycling.

All our cities can use these tools.

There is an interesting trend that projects which were of technical concern a few years ago have now reached maturity. The Mayor of London was brave to introduce congestion charging in London, but it is now accepted by the public. People have come to accepted limited access to the city centre, although they remain in love with their cars.

Koyoto set a target that is difficult to reach, but all the cities have joined in and we are trying - we may not achieve it, but we are working towards it.



Bicing Barcelona: A New Concept of Urban Public Transport

Last March the Barcelona City Council introduced a new individual public transport system using bicycles, called 'Bicing', with the aim to promote more sustainable modes of transport, as well as integrating transport modes.

Bicing consists of a fleet of bicycles distributed in several specific stations located strategically within the city (integrated with public transport and public car parks, generation/attraction points, etc). Once you become a member of Bicing, you can get a bicycle in one station and return it to another.

At present, 100 Bicing stations have been implemented and there are 1500 bicycles running. The fleet is expected to increase by up to 3000 bicycles and 200 stations by the end of this year.

A new mobility concept

With the introduction of a new public transport system like 'Bicing', the first goal to be achieved is the consolidation of bicycles as a real alternative in urban mobility, in such a way that bicycles are completely integrated in the intermodal mobility chain.

In other words, up until now, citizens' trips were in general combinations of different modes of transport, like train+bus or underground+train. Now we have made a positive step by introducing bicycles to these combinations, giving the option to combine train+bicycle or

underground+bicycle. These trips are carried out in a more comfortable and safe way, and without having to worry about where to park the bicycle, how to travel with bicycles in trains or the chance that your bicycle might be stolen.

In this way, the city public transport supply increases in a more sustainable and efficient way, as well as the citizens' quality of life.

How does Bicing work?

Bicing works through a nominal, unipersonal and untransferable card delivered to your home when you become a member (www.bicing.com or Bicing Customers' Office).

Currently, there is the 'Annual card' which costs 24 € and lets you use the system for 30 minutes free of charge, as many times as you need during the day, for a year.

When the trip is longer than 30 minutes, there is a charge of 0.30 € for every 30 minutes more. The maximum use of the same bicycle is 2 hours.

The service timetable is the same as the underground to ensure intermodality, which means that it is open from Sunday to Thursday from 5h to 24h, and Friday and Saturdays all day long.

To make sure the system works properly, an automatic global management software system has

been developed and microchips in the bicycles, let you know how many bicycles are there in every station in real time.

Therefore, bicycles can be redistributed between the stations using a fleet of vans to satisfy demand. Finally, there is a maintenance service guaranteed for the system.

The Bicing network

Currently, there are 100 stations distributed between the two Districts (Ciutat Vella and Eixample) where there are more bicycle lanes and the use of bicycles is higher. The criteria used to implement the stations is:

- Citizens must have a Bicing station within 300 metres.
- Intermodality with public transport (underground, train, tramway).
- Intermodality with public car parks.
- Generation and attraction points (universities, hospitals, markets, etc).

Main features of Bicing

Within 5 months of operation, Bicing has achieved 86,000 members, more than 1 million trips and every bicycle is used 12 times/day on average.

Furthermore, the average distance per trip is 3 km and the average

duration of the trip is 15 minutes, which confirms the use of Bicing as a new element of the intermodal mobility chain.

If we analyse the users' age and gender, 55% are 25-35 years old and 50% are men and 50% women.

In short, we could conclude that the Bicing user is a citizen who works and uses Bicing for his daily trips.

Other cities' experience

Cities like Lyon (France), Oslo (Norway), Estocolm (Sweden), Paris (France) and Brussels (Belgium) have also implemented a bicycle public transport system like Barcelona.

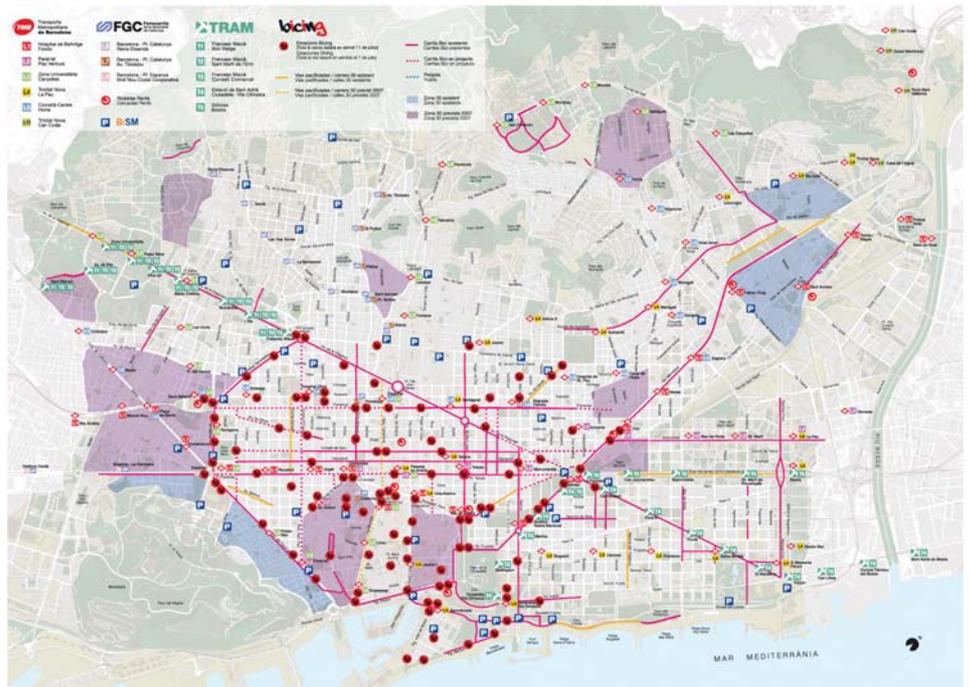
Although each city has its own specific features, all the systems have a lot in common and the same goals.

In this way, Barcelona has proposed the creation of the 'Group of cities with bicycle public systems', in order to share experiences and results helping each other to improve our systems day by day.

The role of bicycles in Barcelona

Bicing is integrated in a global mobility policy to promote bicycles as a real urban mode of transport and to ensure that users can undertake their trips in a comfortable and safe way. In parallel, those people who own their own bicycle have to be taken into account, and infrastructure and bicycle parking must be improved.

So in this way, there are four axis which support the implementation of Bicing in Barcelona:



The main actions that are being carried out are:

- 22 km of new bicycle lanes, increasing the bicycle network up to 150 km. The main goal is the creation of new vertical and horizontal bicycle lanes which connect different parts of the city and to improve the connections between the current network.
- 7,000 new bicycle parking places, doubling the total number of the city up to 14,696 places.
- To improve the current bicycle network safety through the revision of signals, traffic lights and the introduction of red horizontal signals in the bicycle-car and bicycle-pedestrians intersections.

The Bicing funding

Bicing is a public service financed 100% by the revenues of the cities' integral parking regulation called 'Green Area'.

The main goal of the Barcelona mobility policy is, on one hand to implement measures which reduce traffic congestion, and on the other hand, to carry out new projects like

Bicing which promote those modes of transport which are more efficient and sustainable.

So, the 'Green Area' and Bicing are good examples for us to follow. Integral parking regulation was implemented and the use of cars reduced in the inner city, the Bicing system was also implemented as a new individual public transport system and is financed 100% by the income of the parking regulation. In conclusion, the circle is closed.

There are other ways to finance bicycle public transport systems. One of them, used by several European cities, is the integration of the costs related to the bicycle public system to the city advertisement contract. In those cases, it is more difficult to get a real control of the system and the follow up, and the system finance has nothing to do with measures to promote a more sustainable mobility.





News Flash

FIDEUS

Project Update

The EU funded FIDEUS project progressed to the trials stage in 2007. The first tests started at the end of August 2007 in Hanover lasting until the end of January 2008 in three test sites. Other trials took place in Lyon and Barcelona between October 2007 and January 2008.

Further information about the results can be obtained from the Project Manager Jean-Louis GRAINDORGE jl.graindorge@wanadoo.fr

Funding Opportunities

Once more there are opportunities for EU funding through FP7 Calls for Proposals. On 30 November 2007 the Commission published the latest call for Sustainable Surface Transport (FP7-SST-2008-RTD-1). It has a total indicative budget of 102.22 million Euro and will close on 7 May 2008.

For more information go to the FP7 Home Page at cordis.europa.eu/fp7/home_en.html.

Events

March 11-13, 2008 EET-2008

3rd European Ele-Drive Transportation Conference

Geneva, Switzerland: On the Way to Sustainable Development and Market Opening. www.ele-drive.com

21 - 25 April 2008 - Second European Road Transport Research Arena TRA 2008

Ljubljana, Slovenia

www.tra2008.si/17 - 19 October 2007 - European Transport Conference

8-9 May 2008 IMPACTS Europe 12th Annual Conference

New mobility requirements within existing and expanding urban fabric. Zagreb, Croatia. www.impacts.org

4-6 June 2008 - 7th European Congress on Intelligent Transport Systems and Services (ITS)

Geneva, Switzerland. www.itsineurope.com

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IMPACTS Bulletin 06

IMPACTS Website: www.impacts.org

Watch the IMPACTS website for news on dates, venue, etc.

The IMPACTS Website is evolving:

By the time you read this newsletter the IMPACTS website will have made its first steps towards becoming multilingual. We have begun in a modest way to offer navigation in languages other than English (though that remains the default version) and expect to offer other languages during the course of 2008.

The extent to which we can go into depth with our language coverage is constrained by budget and more importantly is dependent upon member needs and the ability of cities to offer content which is multilingual. At this stage we want to encourage each member to revisit their city page and consider what content you can supply. We are also happy to take translations of more general documents etc., that you feel have wider interest.

To make the website more attractive and easier to use the secretariat will continue to look for ways to upgrade the site. We welcome any suggestions you might have. So contact Sarah White with your ideas.

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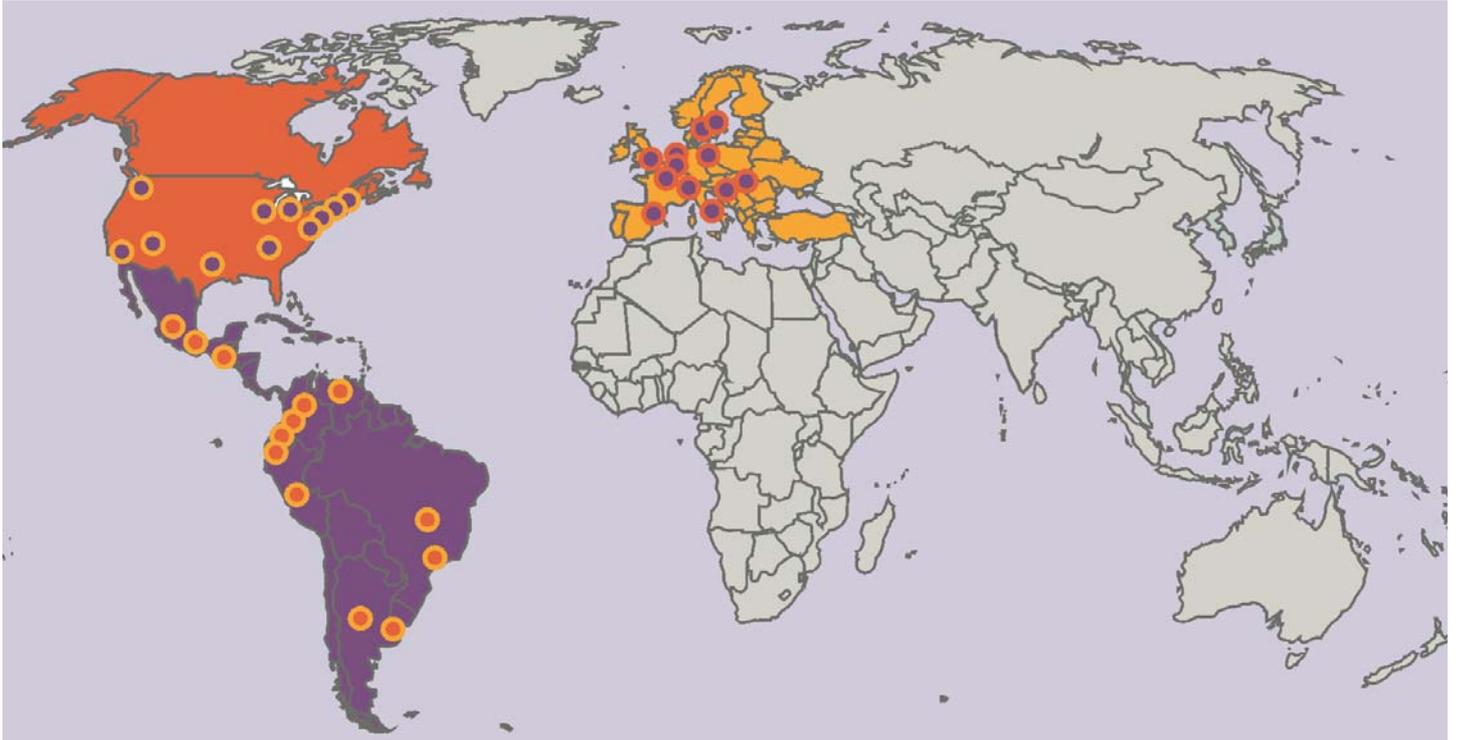
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