BYPAD
Bicycle Policy Audit

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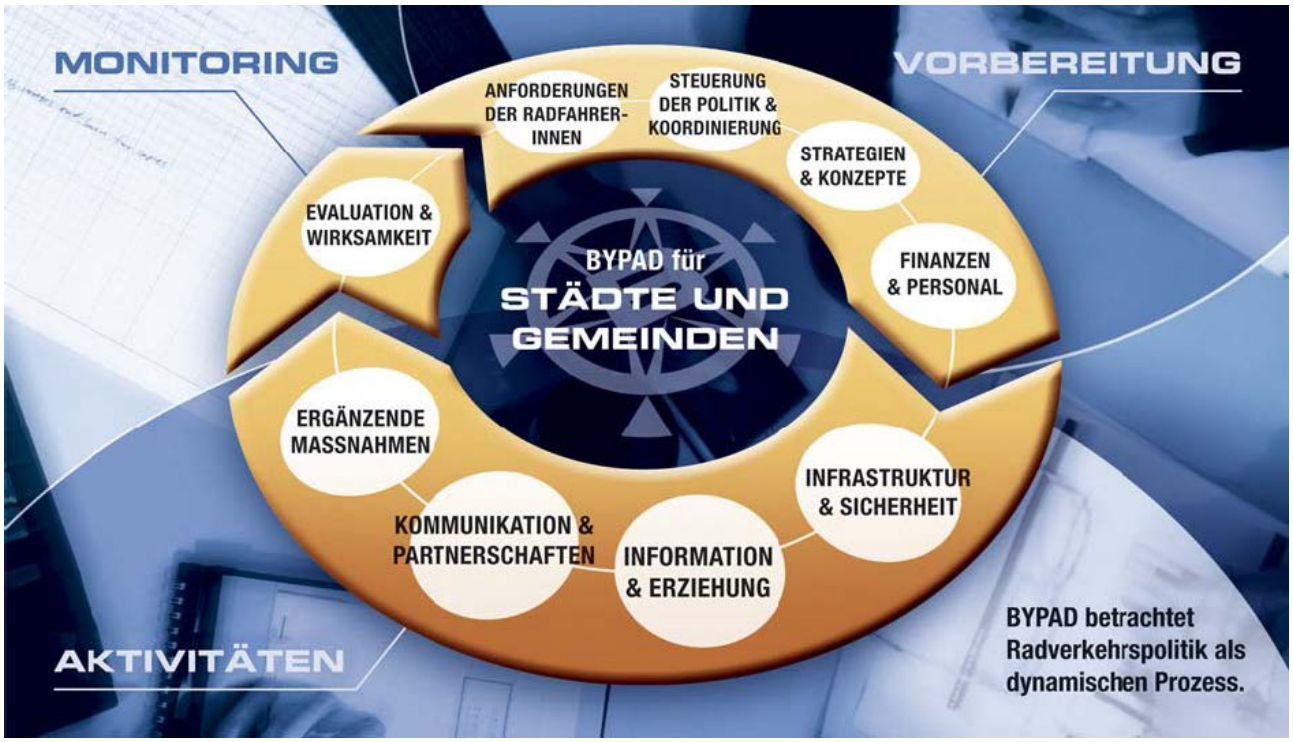

Österreichischer Verkehrssicherheitsfonds
Bundesministerium für Verkehr, Innovation und Technologie

Der effizienteste Weg zur Verbesserung Ihrer Radverkehrspolitik

Ergebnisse und Erfahrungen aus dem BYPAD Projekt

Endbericht

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BYPAD-Plattform wurde gefördert/unterstützt von:

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1. INHALTSANGABE

BYPAD-PLATTFORM ist ein Nachfolgeprojekt der beiden vorangegangenen EU-Projekte BYPAD (1999-2001) und BYPAD+ (2003-2005), die im Rahmen des SAVE-Programms durchgeführt wurden. Im Projekt BYPAD – Bicycle Policy Audit – ist die Methode für das Qualitätsmanagement lokaler Radverkehrspolitik entwickelt worden. Mit BYPAD+ ist ein Europa weites Netzwerk von BYPAD-Städten und -AuditorInnen aufgebaut worden, die diese Methode einsetzen.

Inzwischen wird BYPAD von über 100 Städten und Regionen in 21 europäischen Ländern eingesetzt, begleitet von mittlerweile 58 AuditorInnen aus diesen Ländern. Der BYPAD-Fragebogen liegt in 16 Sprachen vor. Innerhalb weniger Jahre hat sich BYPAD zu einem lizenzierten Zertifizierungssystem entwickelt, das Städten, Gemeinden und Regionen hilft, die Qualität ihrer Radverkehrspolitik zu verbessern und so zur Erhöhung der Verkehrssicherheit beizutragen.

BYPAD wendet Techniken des Qualitätsmanagements an. Es wird geprüft, welche Maßnahmen zur Förderung der Radnutzung und Erhöhung der Verkehrssicherheit getroffen worden sind, wie die Radverkehrspolitik organisiert und in die übrige Politik eingebettet ist (Strategien, Führung, Ressourcen) und evaluiert, welche Maßnahmen zur Erhöhung der Verkehrssicherheit getroffen werden.

Im Auditprozess spielen PolitikerInnen, VertreterInnen der Stadt- oder Landesverwaltung und örtliche NutzerInnengruppen die zentrale Rolle. Unter Begleitung des externen BYPAD-AuditorInnen-Teams versuchen sie gemeinsam, einen Konsens über den aktuellen Stand der Radverkehrspolitik zu finden und definieren Qualitätsziele für die künftige Radverkehrspolitik.

Ergebnis eines BYPAD-Audits sind ein umfassender Evaluationsbericht der bisherigen sowie ein konkreter Qualitätsplan für die künftige Radverkehrspolitik.

Bisher hat sich BYPAD vor allem auf mittelgroße bis große Städte konzentriert (ca. 50'000 – 500'000 Einwohner), in BYPAD PLATTFORM wurde der BYPAD-Prozess für Gemeinden und Regionen entwickelt und umgesetzt. Im Rahmen von BYPAD-PLATTFORM wurden außerdem 37 neue BYPAD-AuditorInnen ausgebildet sowie für die bereits bestehenden AuditorInnen ein Expertentraining durchgeführt. Das Netzwerk von BYPAD Gemeinden, Städten und Regionen wurde vor allem mit Schwerpunkt auf die Neuen Mitgliedsstaaten erweitert.

Über die BYPAD-Website www.bypad.org, regionale Workshops und internationale Seminare wurde die Möglichkeit zum Austausch von Erfahrungen und Erkenntnissen geschaffen.

2. ABSTRACT

BYPAD-PLATFORM is a follower project of the two former EC-projects BYPAD (1999-2001) and BYPAD+ (2003-2005), which were funded by the SAVE program. Within the project BYPAD - Bicycle Policy Audit - the methodology for a systematic quality management of local cycling policy has been developed. Within BYPAD+ a European-wide network of BYPAD-cities and auditors has been created.

Until the end of the project BYPAD-PLATFORM (2008) more than 100 cities and regions in 21 European countries have conducted a BYPAD process, supervised by 58 auditors. The 3 BYPAD questionnaires are available in 16 languages.

Within the last years BYPAD has grown to a recognised certifying system, which supports towns, cities and regions to improve their cycling policy and therefore raise transport safety.

BYPAD builds on proven techniques from quality management. Within a BYPAD process an evaluation which measures have already been implemented to improve the cycling situation, how cycling policy is organised and how cycling policy is embedded and itegrated in the whole policy and administrative system (strategies, financial and human ressources,...) takes place.

Politicians, representatives of the adminstrative departments and representatives of user groups (daily cylists) are the core players of an Bicycle Policy Audit, an external BYPAD-auditor team is accompanying and supervising the whole process. All together are evaluating the currenty cycling policy and elaborate in a consensual process a quality plan with detailed quality measures for improving the current situation.

The concrete result of a BYPAD-audit is a comprehensive evaluation report of the current situation and a quality plan for the future cycling policy.

Within the first two research projects (BYPAD and BYPAD+) the focus was laid on mid-sized and large cities (approx. 50´000-500´000 inhabitants), within BYPAD-PLATFORM the process was updated and adapted for towns (less than 50´000 inhabitants) and regions (more than 500´000 inhabitants). Furthermore 37 new BYPAD auditors were trained and an expert training for the already existing auditors was organised. The network of BYPAD-towns, -cities and -regions was extended especially to the New Member States.

With the help of the BYPAD-website www.bypad.org, regional workshops and international seminars the possibility of exchanging experiences and expertises was given.

3. ZUSAMMENFASSUNG

BYPAD-Plattform (BYPAD steht für Bicycle Policy Audit - Radverkehrspolitik-Audit), das letzte von drei EU geförderten Projekten (nach BYPAD und BYPAD+) startete im Jahr 2006 und endete im Jahr 2008. Das übergeordnete Ziel von BYPAD-Plattform war das bestehende BYPAD-Werkzeug für die Anwendbarkeit in Regionen und kleinere Städte (Gemeinden) zu erweitern sowie das Netzwerk der BYPAD-AuditorInnen, der Städte, Gemeinden und Regionen vor allem im zentraleuropäischen Raum sowie in den Neuen Mitgliedsstaaten auszubauen. Im Rahmen des Projektes wurde je ein BYPAD-Werkzeug für Gemeinden, Städte und Regionen entwickelt. Außerdem wurden 37 neue BYPAD AuditorInnen ausgebildet. Für die bestehenden AuditorInnen wurde ein internationales Expertentraining durchgeführt, bei dem die neuesten Erkenntnisse und Erfahrungen im Bereich Radverkehrspolitik ausgetauscht wurden. Mit Ende des Forschungsprojektes, im September 2008, war BYPAD bereits in mehr als 100 EU-Gemeinden, Städten und Regionen, in 21 Ländern angewandt, durchgeführt von 58 zertifizierten AuditorInnen.

Gesteckte und erreichte Ziele

Ziel des Projektes BYPAD-Plattform war es, durch die Durchführung von Radverkehrspolitik-Audits in Gemeinden, Städten und Regionen die Qualität der Radverkehrspolitik zu verbessern sowie den jeweiligen Radverkehrsanteil und die Radverkehrssicherheit zu erhöhen. Die BYPAD Methode wurde in einem früheren SAVE Projekt entwickelt, das Ergebnis eines BYPAD-Prozesses in einer Gemeinde, Stadt oder Region ist eine umfassende und qualitativ-hochwertige Evaluierung der Radverkehrspolitik sowie ein darauf aufbauender, konkreter Radverkehrs-Arbeitsplan.

Die BYPAD-Plattform sichert die hohe Qualität der Methode durch eine regelmäßige Überarbeitung dieser, sowie durch die Ausbildung qualifizierter Auditoren.

Das Projekt ermöglichte außerdem eine strukturierte Sammlung von Guten Beispielen im Bereich der Radverkehrspolitik, sowie den Austausch von Erfahrungen und Know-how.

Im Rahmen des Projekts wurde das BYPAD-Netzwerk in Richtung der neuen EU-Mitgliedstaaten erweitert. Für die Ausbildung neuer AuditorInnen wurde ein Training durchgeführt. Die BYPAD-Methode wurde für Regionen (große städtische Agglomerationen, Bezirke, Bundesländer, etc.) und für kleine Städte beziehungsweise Gemeinden erweitert. Der Austausch von bestehendem Wissen wurde durch die Entwicklung eine Datenbank von Guten Beispielen und durch die Organisation verschiedener internationaler Seminare und Workshops maßgebliche verbessert. Die Internetseite www.bypad.org sowie Newsletter, regionale Workshops etc. wurden im Rahmen des Projektes weiter ausgebaut.

Tätigkeiten im Projekt

- Entwicklung der BYPAD Methode für Regionen, Bundesländer, Bezirke (BYPAD-Regionen)

- Entwicklung der BYPAD Methode für kleine Städte (BYPAD-Gemeinden)
- Überarbeitung und Verbesserung des bestehenden BYPAD Fragebogens (BYPAD Städte)
- Ausbildung von zusätzlichen BYPAD-AuditorInnen, mit besonderem Schwerpunkt auf die Neuen Mitgliedsstaaten
- Entwicklung einer „Best-practice“ Datenbank für Radverkehr und Radverkehrspolitik (Befüllung der ELTIS Datenbank)
- Organisation und Durchführung von regionalen Workshops und internationalen Seminaren
- Überarbeitung und Aktuell-Haltung der BYPAD Webseite, Aufsetzen von BYPAD Newsletter, Vorträge über BYPAD auf Konferenzen
- Bewerbung von BYPAD in „neuen“ Ländern, in denen BYPAD bis dato nicht bekannt war, in „neuen“ Städten und Akquise zusätzlicher BYPAD AuditorInnen
- Sicherung des BYPAD-Qualitätsstandards durch Überarbeiten der Methode. Dabei wurden insbesondere Anmerkungen erfahrener AuditorInnen und die Rückmeldungen bereits auditierter Städte und Regionen berücksichtigt.
- Zertifizierung neuer BYPAD-AuditorInnen, Zertifizierung neuer BYPAD-Gemeinden -Städte und -Regionen
- Beratung der Europäischen Kommission bezüglich Europäischer Radverkehrspolitik

Konkrete Ergebnisse des Projektes

- Das übergeordnete Ergebnis ist der Start einer BYPAD-Plattform (zu Verstehen als Qualitätszentrum)
- Internationales Netzwerk von BYPAD-AuditorInnen sowie ein Netzwerk von BYPAD-Gemeinden, -Städten und -Regionen
- Austausch von Know-how und Erfahrungen im Bereich Radverkehrspolitik
- 37 neue ausgebildete BYPAD-AuditorInnen
- Radverkehrs-Qualitätsstandard, der von den jeweiligen nationalen Ministerien anerkannt ist
- Entwicklung eines anerkannten Zertifizierungssystems für Qualitätsmanagement in der Radverkehrspolitik
- Implementierung von Auditierungs-Techniken und Totales Qualitätsmanagement im Bereich nachhaltiger Verkehrsplanung
- Anpassung des Zertifizierungssystems für nachhaltigen Verkehr

Detaillierte Beschreibung der im Projekt erzielten Ergebnisse

Mit der Einführung der Aspekte des Totalen Qualitätsmanagements in den Bereich der Radverkehrspolitik wurde die Anerkennung von Radverkehrspolitik als zentralen und elementaren Part in der Gesamtverkehrspolitik einer Gemeinde, Stadt oder Region beabsichtigt. BYPAD begann als ein von der Europäischen Kommission gefördertes Forschungsprojekt, mit dem Ziel ein Totales Qualitätsmanagement Werkzeug für Radverkehrspolitik zu entwickeln. Zu Beginn des Forschungsprojektes war niemandem bewusst, das solch ein Qualitätsmanagement-Werkzeug tatsächlich einen solchen Einfluss in der Radverkehrspolitik europäischer Städte haben könnte.

Zu Ende des ersten Forschungsprojektes 2001 war jedoch allen Projektpartnern klar, dass ein sehr starkes und wirkungsvolles Instrument entwickelt wurde, das ein großes Potenzial aufwies einen Europaweiten Qualitätsstandard für Radverkehrspolitik zu definieren.
Das Projekt BYPAD Plattform, als drittes und vorerst letztes gefördertes EU-Projekt wurde das BYPAD Werkzeug weiterentwickelt und räumlich weiter verbreitet. Außerdem wurde ein Europaweites Netzwerk von über 100 Gemeinden, Städten und Regionen in 21 europäischen Ländern geschaffen, die aktiv in die Verbesserung ihrer Radverkehrspolitik investieren. Im Rahmen von BYPAD wurden insgesamt 58 AuditorInnen ausgebildet, die den BYPAD-Prozess in einer Gemeinde, Stadt oder Region begleiten. Die Städte Netzwerke POLIS (European cities and regions networking for innovative transport solutions), Energie-Cité (European Association of local authorieites inventing their energy future) und ICLEI (local governemnts for sustainability) wurden in die Disseminierung der Aktivitäten und Ergebnisse mit einbezogen.
Somit wurde mit BYPAD sowohl ein Qualitätsmanagement Werkzeug als auch ein fest verankertes Netzwerk von (Radverkehrs-)Städten/Regionen und von Radverkehrsexperten geschaffen, sowie auch die Bedeutung einer integrierten Radverkehrspolitik bewiesen. Mittlerweile wurde BYPAD ein international anerkannter Qualitätsstandard für Radverkehrspolitik.
Verschiedenste nationale und regionale Radverkehrsstrategien (z.B. Österreich, Deutschland, Tschechische Republik, etc.) empfehlen BYPAD als Qualitätsmanagement-Werkzeug anzuwenden, um die lokale Radverkehrspolitik nachhaltig zu verbessern.

BYPAD in Gemeinden, Städten und Regionen

Um den Evaluierungsprozess im Rahmen eines BYPAD- Audits durchführen zu können, wurden 3 verschieden Fragebögen entwickelt. Basierend auf der Größe einer Gemeinde, Stadt oder Region und basierend auf dem Entwicklungsstand im Bereich Radverkehrspolitik werden unterschiedliche Werkzeuge zur Einschätzung der Radverkehrspolitik benötigt. Es wurde jeweils ein Fragebogen für Gemeinden, einer für Städte und einer für Regionen entwickelt:

Gemeinden

Unter Gemeinden werden im Rahmen von BYPAD administrative Gebietseinheiten von bis zu 50.000 Einwohnern verstanden, wobei diese Maßzahl von Land zu Land sehr unterschiedlich sein kann. Bezüglich der administrativen Organisation hat eine Gemeinde personell gesehen eine eher kleinere Administrationsebene, etwa 1-2 Leute sind für alle Aufgaben im Verkehr (inklusive Radverkehr) und Stadtplanung zuständig. Eine Gemeinde weist einen (eingeschränkten) urbanen Charakter auf.
Der Fragebogen für Gemeinden umfasst 18 Fragen. Der Gemeinde-Fragebogen wurde 2006 entwickelt. Im Zeitraum von 2006-2008 wurde in 13 Gemeinden BYPAD implementiert.

Städte

Unter Städten und städtischen Agglomerationen wird im Rahmen von BYPAD größere urbane Einheiten gesehen, die eine eigenständige integrierte Verkehrspolitik verfolgen. In der Praxis kann eine städtische Agglomeration über administrative Grenzen hinausgehen, für BYPAD ist es jedoch grundlegend, dass eine gemeinsame Verkehrspolitik verfolgt wird. Als Mindestzahl bezüglich Einwohner wurde die Obergrenze von Gemeinden festgelegt, das heißt 50.000, wobei diese Zahl wiederum von Land zu Land stark variieren kann (so ist etwa eine Agglomeration mit 50.000 Einwohner eine klein bis mittelgroße Stadt in Deutschland, jedoch eine große Stadt in Slowenien).

Die Administrationsebene einer Stadt weist komplexere Strukturen auf und umfasst verschieden Abteilungen die sich mit Verkehrs, Raumplanung, Bildung und Umwelt befassen.

Der Fragebogen für Städte umfasst 30 Fragen. Der Fragebogen wurde 1999 erstmalig entwickelt und seitdem regelmäßig überarbeitet. Im Zeitraum von 1999-2008 wurde in 88 Städten BYPAD durchgeführt.

Regionen

Regionen weisen eine übergeordnete administrative Ebene auf. Abhängig vom jeweiligen Land können dies zum Beispiel Landkreise, Bezirke oder auch Bundesländer sein.

Regionen haben übergeordnete Aufgaben im Bereich Infrastruktur- und Verkehrsplanung, Raumplanung und Bildung. Der konkrete Aufgabenbereich variiert von Land zu Land, im Bereich Radverkehrsplanung können 2 Hauptrichtungen unterschieden werden:

Typ A: Umsetzung direkter Radverkehrs-Maßnahmen, zum Beispiel Aufbau und Bewerbung eines regionalen Radverkehrsnetzes mit Radverkehrsanlagen auf/entlang Regionalstraßen für den Alltags- und/oder den Freizeitradverkehr.

Typ B: Umsetzung einer indirekten Radverkehrspolitik durch die Stimulierung von Radverkehrsmaßnahmen in den einzelnen Gemeinden, zum Beispiel durch Bereitstellung von finanziellen Mitteln, Wissen und methodischen Werkzeugen.

Der BYPAD-Regionen Fragebogen umfasst 23 Fragen. Der Fragebogen wurde 2006 entwickelt, im Zeitraum von 2006 bis 2008 wurden 18 Regionen mit Hilfe dieses Fragebogens auditiert.

Aufbau eines Experten-Netzwerkes von 58 BYPAD-AuditorInnen

Im Rahmen eines intensiven Ausbildungsprogramms wurde ein Europaweites Netzwerk von 58 zertifizierten BYPAD AuditorInnen geschaffen. Dieses Netzwerk von AuditorInnen bildet eine fundierte Reputation für Radverkehrsexperten. Eine wesentlicher Aspekt eines/r zertifizierten BYPAD-AuditorIn, ist die Bereitschaft des lebenslangen Lernens im BYPAD-Netzwerk. Um die Zertifizierung zu behalten muss zumindest alle zwei Jahre ein Expertentraining absolviert werden, um auf dem neuesten Stand im Bereich Radverkehrspolitik zu bleiben, sowie um Erfahrungen und Know-hows in der Expertenrunde auszutauschen.

Einführung des Totalen Qualitätsmanagements in die Radverkehrspolitik

BYPAD ist ein starkes Werkzeug, das inzwischen als Marke in ganz Europa anerkannt wird. Mit Hilfe von BYPAD wurden Aspekte des Totalen Qualitätsmanagements in die Radverkehrspolitik überführt, womit BYPAD nun auch als effiziente und effektive Methode zur Verbesserung der lokalen und regionalen Radverkehrspolitik angesehen wird.

Da im Rahmen von BYPAD die Gemeinden, Städte und Regionen sich selber evaluieren, also eine Selbstevaluierungs-Methode angewandt wird, wurde spezielles Augenmerk auf den Vergleich der unterschiedlichen Ergebnisse und erzielten „Punkte“ einer Gemeinde oder Stadt gelegt. Da BYPAD grundsätzliche einen qualitativen Ansatz verfolgt (unter Berücksichtigung von einzelnen quantitativen Elementen), da die Audits von verschiedenen AuditorInnen durchgeführt werden, und vor allem auf Grund des Selbstevaluierungsansatzes sollten die Ergebnisse einzelner Gemeinden, Städte oder Regionen vor allem unterschiedlicher Länder nicht direkt miteinander verglichen werden. Obwohl von den BYPAD-Gründern und BYPAD-Partnern immer betont wurde, dass BYAPD keinen Wettbewerb darstellen soll, scheint für einige Gemeinden, Städte oder Region der Vergleichs- bzw. Rankingsansatz interessant.

Europäischer Qualitätsstandard für Radverkehrspolitik

Für Gemeinden, Städte und Regionen die an der Verbesserung ihrer Radverkehrspolitik arbeiten sind bereits gesetzte Standards und erprobte effektiven Maßnahmen wichtige Anhaltspunkte und Richtwerte. Im Rahmen von BYPAD wird genau dieses Wissen den Gemeinden bereitgestellt und ein maßgeschneidertes Set von Maßnahmen zur Verbesserung der Radverkehrspolitik erarbeitet. Die standardisierte BYPAD Methode bildet die Grundlage zur Einschätzung des Qualitätslevels oder Qualitätsstandards einer Gemeinde, Stadt oder Region in Bezug auf seine oder ihre Radverkehrspolitik. Diese Qualitätslevels wurden Europaweit standardisiert. Mit Hilfe von BYPAD können somit die Gebietskörperschaften feststellen auf welchem Qualitätslevel oder Qualitätsstandard sich ihre Radverkehrspolitik derzeit befindet und welches Level oder welchen Standard sie erreichen möchten.

Werkzeug zur Beobachtung der Radverkehrspolitik

Da BYPAD ein Selbstevaluierungs-Instrument ist, mit dessen Hilfe ein Qualitätsplan oder ein Arbeitspapier zur Verbesserung der Radverkehrspolitik erarbeitet wird, kann es hervorragend gleichzeitig als Werkzeug zur kontinuierlichen Beobachtung der Veränderung in der Radverkehrspolitik verwendet werden. Die Einschätzung des BYPAD Levels pro Modul zeigt klar an, auf welchem Stand sich das jeweilige Modul (der jeweilige Themenbereich der Radverkehrspolitik) befindet. Bei einer regelmäßigen Wiederholung der Leveleinschätzung alle 3-4 Jahre kann die genaue Entwicklung der Radverkehrspolitik nachvollzogen werden.

Wissens-Zentrum für (beginnende) Radverkehrsstädte/-regionen

Das gesamte BYPAD Netzwerk deckt den aktuellen Wissenstand bezüglich möglichen Maßnahmen und Strategien zur Verbesserung der Radverkehrssituation ab. Besonders die Neuen Mitgliedsstaaten und Städte die nur begrenztes Personal oder Expertise zur Verbesserung der Radverkehrssituation haben können auf dieses umfangreiche Wissen zurückgreifen und auf die Unterstützung des BYPAD-Netzwerkes zählen.

Austausch von speziellem Wissen im Bereich Radverkehr - Nationale und regionale Workshops in der jeweiligen Landessprache

Bei diesen Workshops wurden die teilnehmenden Städte und Regionen aktive in die Workshop Arbeit involviert. Spezieller Schwerpunkt war auch, dass neue Städte und Regionen BYPAD kennen lernen und sich von dessen Vorteilen überzeugen können. (Z.B. Recklinghausen, Deutschland für den deutschsprachigen Raum; Genf, Schweiz für den französischsprachigen Raum; Hertogenbosch, Niederlande auf niederländisch; Lund, Schweden für den schwedisch- und dänischsprachigen Raum.)

Internationale Seminare und Exkursionen

Internationale Seminare mit speziellen Schwerpunktthemen des Radverkehrs sowie auch Exkursionen wurden vom BYPAD Konsortium organisiert. Diese Seminare und Exkursionen dienten vor allem dem Austausch zwischen Radverkehrsexperten.
(Z.B. Ceske Budejovice/Tschechische Republik 2006, München/Deutschland 2007, Tartu/Estland 2008, …)

BYPAD Website

www.bypad.org ist sowohl eine Informationsseite über BYPAD als auch ein Arbeitsinstrument für die BYPAD-AuditorInnen und BYPAD-Städte und -Regionen. Die Webseite beinhaltet einen öffentlichen Bereich (mit Informationen über die BYPAD-Methode, Kontaktmöglichkeiten, Erfahrungen von Städten, Best-practice-Datenbank) und einen internen Bereich mit Ergebnissen der BYPAD-Audits, Berichte zu den Audits, den BYPAD-Fragebögen, Registrierung für die Gemeinden, Städte, Regionen, etc.
Die Best-practice-Datenbank zeigt Beispiele für alle Qualitätslevels für Radverkehrspolitik von BYPAD Städten und Regionen.
Die drei BYPAD-Fragebögen (Gemeinden, Städte und Regionen) sind in 15 Sprachen erhältlich.
Der BYPAD-Newsletter, der 3-mal pro Jahr veröffentlicht wurde, wurde über das BYPAD Netzwerk sowie über die Kontakte der BYPAD-AuditorInnen und Netzwerkpartner verteilt.

4. EXECUTIVE SUMMARY

BYPAD-Platform (BYPAD is standing for Bicycle Policy Audit), the last of three followers EU projects (after BYPAD and BYPAD+) started in 2006 and ended in 2008. The main goal of BYPAD-Platform was to widen the BYPAD-tool for towns and regions and to expand the network of auditors, cities, towns and regions to central Europe and the new Member States. Within in the project a BYPAD-city, BYPAD-town and BYPAD-regional tool has been developed and 37 new BYPAD auditors have been trained. Also the existing BYPAD-auditors followed an expert training to exchange all relevant new knowledge on cycling policy. In September 2008 BYPAD was implemented in more than 100 EU-cities or regions in 21 countries, guided by 58 certified auditors.

Objectives

The project BYPAD-platform aimed to improve the quality of cycling policies and increases the cycle use and safety, by implementing the audit in cities, towns and regions. BYPAD was developed in a former SAVE project and its outcome is a profound evaluation report of the cycling policy hitherto and a tangible Bicycle Action Plan.

The platform safeguarded a high quality by updating the audit method, by training qualified auditors, by offering a quality label.

The BYPAD-platform enabled the exchange of experiences and good practices in cycling policies.

Within the project an expansion of the BYPAD-network to the new EU countries and a training of new auditors were conducted. The BYPAD method was also be adapted for regions (large metropolitan districts, counties, provinces, …) and for small towns. The exchange of knowledge was improved by developing a good practice database and by organising different international seminars. The website, newsletters, regional workshops, … will continue in the platform.

Description of the work - what has been done within the project

- Development of a BYPAD-method for large metropolitan districts, agglomerations, counties, regions (= Bypad-region)
- Development of a BYPAD-method for small towns (= BYPAD-quickscan)
- Updated and improvement of the existing BYPAD-questionnaire (= Bypad-city)
- Training of new BYPAD-auditors, especially in the new Member States
- Development of a best practice database on cycling (= feeding the ELTIS database)
- Organisation of regional workshops and international seminars
- Maintenance of the BYPAD-website, creation of a BYPAD-newsletter, BYPAD-lectures on conferences
- Promotion of BYPAD in new countries, cities, acquisition of new auditors, …

- Safeguard the BYPAD-quality standard by updating the method with the input from all BYPAD-auditors and from the feedback from the cities/regions.
- Certification of BYPAD-auditors, certification of BYPAD-cities, regions, countries
- Advise for the European commission for European cycling strategy

Achieved results

The main final outcome is the start of a BYPAD-platform (quality centre)

- Having an international network of BYPAD-auditors (consultants, universities), cities and regions
- Exchange of experience on cycling policy
- 37 new BYPAD-auditors trained
- Set a bicycle quality standard for local and regional authorities recognised by the national authorities
- Created a recognised certifying system for the quality level of cycling policy
- Implementation of auditing techniques / total quality management in sustainable transport planning
- Widened the certifying system to sustainable transport via exchange of knowledge with other certifying systems.

Detailed description of the most important achieved results

By introducing the aspect of Total Quality Management in cycling policy, BYPAD wanted to recognise cycling policy as a serious and vital part of a city's or region's transport policy. BYPAD started as a research project financed by the European commission to develop a Total Quality Management Tool for cycling policy. During the stage of this research project nobody was sure that such a Total Quality Management Tool could make a difference for cycling policy in European cities. However at the end of the first BYPAD-project in 2001 all the partners were convinced that a strong instrument had been made with a lot of potential to define a European quality standard for cycling policy.

With the BYPAD-platform, as the final EU-funded project to support the development and dissemination of the cycle audit tool BYPAD, there has been has created a pan-European network of around 100 cities, towns and regions in 21 European countries who actively invest in improving the quality of their cycling policy. Via BYPAD 58 certified auditors were trained to supervise the audit process and the city networks POLIS, Energie-Cité and ICLEI were involved in dissemination activities.

Through BYPAD both a serious quality improvement tool and a strong network of (cycling)cities/regions and cycling experts raised and the relevance of having an integrated cycling policy in cities/regions was proven. In the mean while BYPAD has become the quality standard for cycling policy. Different national and regional cycling strategies (e.g. Austria, Germany, Czech Republic, …) are advising to use BYPAD as a quality management tool to improve the local cycling policy.

BYPAD in towns, cities and regions

For implementing BYPAD there have been developed three different questionnaires to do the evaluation process. Reason for this is that depending on the size of a city and depending on the policy level of the authority there are a lot of differences in kind of measures you can implement for cycling policy. There has been made a specific questionnaire for:

Towns

Under *towns*, we understand municipalities with a (limited) urban character. As a guide number, a town has around 30.000 to 50.000 inhabitants, but this figure really varies from country to country. Concerning the administrative organization, a town has a small administration where one or two persons have responsibility for all tasks concerning cycling, transport and urban planning policy.

There are 18 questions in the BYPAD-questionnaire for towns. The BYPAD-town questionnaire has been developed in 2006. In the period 2006-2008 13 towns have been implemented BYPAD

Cities and agglomerations

Under *cities and agglomerations*, we understand large urban areas which functionally need one integrated traffic policy. In practice these areas could cross different administrative borders (urban agglomerations) but it is vital to have a common vision on the transport / cycling policy.

As a lower limit, a city or agglomeration should at least have 50.000 inhabitants, but this figure really varies from country to country (e.g. a city of 50.000 inhabitants is mid-sized for Germany, while it is a large city for Slovenia).

Concerning the administrative organization, a city or agglomeration already has a rather big administration with different (city) departments which are dealing with transport, land use planning, education and environment.

There are 30 questions in the BYPAD-city questionnaire. The BYPAD-city questionnaire has been developed in 1999 and since has been adapted regularly. In the period 1999 – 2008 88 cities have implemented BYPAD

Regions

Regions are the administrative level above the municipalities. Depending on the country, we are speaking about provinces, regions, counties, …

Regions do have their own tasks in infrastructure planning, transport planning, education,… The list of tasks differs from region to region. BYPAD distinguishes two main types of tasks:

> Type A: Executing direct cycling policy-measures: Realization and promotion of a regional cycling network and of bicycle facilities on/along regional roads, for daily and/or recreational cycling.

Type B: Implementing an indirect policy of stimulating the cycling policy of municipalities and local organizations: Facilitating local actors with funds, arguments, tools and knowledge.

There are 23 questions in the BYPAD-region questionnaire. The BYPAD-region questionnaire has been developed in 2006. In the period 2006 – 2008 18 regions have implemented BYPAD

Creation of an expert network of 58 BYPAD-auditors

Via an intensive training programme a European wide network of 58 certified auditors has been created and this network of auditors has built a good reputation of being a group of experts in cycling policy. An important precondition of being a certified BYPAD-auditor is the 'lifelong' learning in the BYPAD-network. For staying a certified auditor you have to follow a training at least every two year on new elements in cycling policy and experiences with BYPAD.

Introduction of total quality management in cycling policy

BYPAD is a strong instrument with a good name recognition all over Europe. Via BYPAD the aspect of Total Quality Management in cycling policy has been introduced and it is now also recognized as an efficient method to improve local and regional cycling policies. As BYPAD initially is a self-evaluation tool to help improve the cycling policy of a city, region or town there has been given a lot of attention to the comparing of scores and results by these authorities. As the BYPAD-method is basically a qualitative approach and as the audits are also done by different auditors with other backgrounds it is however dangerous to directly compare the BYPAD-scores between different countries with each other. Although the BYPAD-partners continuously underlined that BYPAD is no beauty contest, the BYPAD-results also initiated a level of competition between cities, towns and regions.

A European quality standard for cycling policy

Cities, towns and regions that are willing to improve their cycling policy are also looking for standards, inspiration, effective policy measures for stimulating cycle use. Through BYPAD these authorities got a tailor made package of measures which are necessary to implement. This tailor made package is however the result of a standardized method which gives the European standard for the different quality levels you could reach in cycling policy. Based on BYPAD authorities can see which quality level or standard they already have reached and to which quality level or standard they should go for.

Monitoring tool for cycling policy

As BYPAD is at first place a self-evaluation instrument which helps to prepare an action programme for improving a city's or region's cycling policy it can easily be used as a monitoring tool to see what is the evolution of the city's cycling policy. The BYPAD-scores for each module clearly indicate the actual quality level and by repeating the same exercise every three to four years the progress in cycling policy can be detected.

Knowledge centre for (starting) cycling cities/regions

The BYPAD-network is covering the state of the art knowledge on possible measures and strategies to stimulate and facilitate cycle use. Especially new member states and cities which have a lack of expertise or personnel to start up clear cycle measures could rely on the support of the BYPAD-network to implement cycle measures.

Exchange of cycling expertise - National/regional workshops, by language region

On these workshops, the participating cities/regions actively played a role and new cities/regions came into contact with the BYPAD-tool (e.g. Recklinghausen, Germany, in German for D-A-CH. Genève, Switzerland, in French for CH-F-B), 's Hertogenbosch, The Netherlands, in Dutch for NL-B, Lund, Sweden, in Swedish and Danish for S-DK-N).

International seminars / excursions: international seminars on specific cycling topics and excursions were organised to stimulate the exchange of cycling expertise (e.g. Ceske Budejovice/Czech Republic 2006, Munich/Germany 2007, Tartu/Estonia 2008, …).

BYPAD-website

www.bypad.org is both an informative medium as a working instrument for the BYPAD-auditors and BYPAD-cities/regions. There is a *public area* (with information on the BYPAD-method, contact points, experiences of cities, best practice database) and a *protected area* with results of the BYPAD-cities, city reports, BYPAD-questionnaire, city registration etc.

The best practices database of BYPAD gives examples of all BYPAD-cities. This means there are given examples for all different quality levels in cycling policy.
The 3 BYPAD-questionnaires for cities/ towns/ regions are each available in 15 languages.

The BYPAD-newsletter, published 3 times a year, is disseminated throughout the BYPAD network and via the contacts of the BYPAD auditors and network partners.

5. EINLEITUNG

Im Jahr 1999 förderte die Europäische Kommission im Rahmen des SAVE-Programms das Projekt BYPAD. Das Ziel von BYPAD war ein Qualitätsmanagement Werkzeug zu entwickeln, mit Hilfe dessen einerseits die Qualität der Radverkehrspolitik in Städten gemessen und andererseits darauf aufbauend einen Qualitätsplan erarbeitet werden kann.

Der gänzlich neue Ansatz dabei war die Einführung des Totalen Qualitätsmanagement in die Radverkehrspolitik. Im Rahmen eines BYPAD-Audits wird sowohl die Radverkehrssituation vor Ort evaluiert als auch all relevanten Key-Players (NutzerInnern, Administration und Politik) in den Prozess involviert. Begleitet wird der gesamte Auditprozess von einem externen Auditor.

Das erste BYPAD Projekt wurde von Langzaam Verkeer (Projektkoordinator), FGM-AMOR; Velo:Consult und ECF (The European Cyclists‘ Federation) durchgeführt. Das Konsortium entwickelte im Rahmen des Projektes das Audit-Tool und testete es in 7 europäischen Städten (Gent, Birmingham, Zwoll, Grenoble, Ferrara, Troisdorf und Graz). Angespornt durch die sehr erfolgreiche Implementierung der BYPAD Methode in diesen Städten war das zweite BYPAD Ziel bald klar: die Methode in Europa zu verbreiten und einen Wissensaustausch zwischen Städten und BYPAD-AuditorInnen zu ermöglichen.

Zwei Nachfolgeprojekte (BYPAD+ und BYPAD Plattform) konzentrierten sich daraufhin auf genau diese Schwerpunkte: Die Methode bekannt zu machen und zu verbreiten, sie zu verbessern und auszubauen und das Know-how bezüglich Radverkehr in Europa zu vernetzen.

Innerhalb der letzten 9 Jahre baute BYPAD somit ein pan-europäisches Netzwerk von etwa 100 Gemeinden, Städten und Regionen in 21 europäischen Ländern auf. 58 AuditorInnen wurden ausgebildet und zertifiziert den Audit-Prozess zu begleiten und die Städtenetzwerke POLIS, Energie-Cité und ICLEI unterstützen bei den Verbreitungsaktivitäten.

Durch diese umfassenden Aktivitäten entstand aus BYPAD einerseits ein anerkanntes Qualitätsmanagement Werkzeug und andererseits ein verankertes Netzwerk von Radverkehrsexperten. Weiters wurde eine Plattform für den strukturierten Wissens- und Erfahrungsaustausch für (Radverkehrs)Städte und Regionen geschaffen. Heute ist BYPAD ein standardisiertes und anerkanntes Qualitätsmanagement-Werkzeug in der Radverkehrspolitik. Mehrere nationale und regionale Radverkehrsstrategien (z.B. Österreich, Deutschland, Tschechische Republik,...) empfehlen BYPAD als Werkzeug zur Verbesserung der lokalen Radverkehrspolitik zu verwenden.

Nach fast 9 jähriger finanzieller Unterstützung durch die Europäische Union steht BYPAD nun praktisch auf eigenen Beinen und entwickelte sich zu einer Plattform, die die Qualität von Radverkehrspolitik verbessert sowie den Radverkehrsanteil und die Radverkehrssicherheit durch

- die Implementierung von Radverkehr-Audits in Städten und Regionen

- den Austausch von Radverkehrsexpertise und -fachwissen innerhalb des BYPAD Netzwerkes (AuditorInnen, Gemeinden, Städten und Regionen) erhöht.

Mit Jänner 2009 wurde ein BYPAD-Board installiert, das alle BYPAD Aktivitäten zentral koordiniert. Dies umfasst die Kommunikation (Webseite, Newsletter,....), die Ausbildung neuer AuditorInnen, Zertifizierung von Städten und Regionen, Abhaltung von Workshops, ...) Das BYPAD-Board besteht aus einigen der zentral in die BYPAD EU-Projekte involvierten Partner: FGM-AMOR (Österreich), Velo:Consult (Schweiz), TIMENCO (Belgien/Niederlande), CDV (Tschechische Republik) und ECF. Die Finanzierung der Aktivitäten des Boards erfolgt über die Mitgliedsgebühren der AuditorInnen sowie von den Städten und Regionen die BYPAD anwenden.

Dieser Endbericht möchte den Status Quo der Radverkehrspolitk, basierend auf den Erfahrungen aus den BYPAD Audits, in Europa aufzeigen. Wir suchen nach Antworten warum in den einzelnen Ländern, Regionen und auch Städten der Radverkehrsanteil so unterschiedlich hoch ist, und das Rad als Alltagsverkehrsmittel so unterschiedlich stark genutzt wird. Welche Faktoren haben Einfluss auf die Radnutzung und wie kann man das Bewusstsein hin zum Radfahren stärken?
Gibt es den einzelnen Ländern unterschiedliche Ansätze (z.B. größerer Schwerpunkt auf Infrastruktur in den Nordeuropäischen Ländern)? Kann man von unterschiedlichen Phasen in der Radverkehrspolitik sprechen und damit einhergehend von unterschiedlichen Maßnahmenpaketen passend zu den einzelnen Phasen?

Im ersten Teil des Berichts finden sich grundlegende Informationen zu BYPAD sowie auch Vergleiche zwischen BYPAD und anderen Evaluierungsmethoden in Europa.
Der zweite Teil behandelt dann im Detail die Unterschiede in der Radverkehrsnutzung und in der Radverkehrspolitik in europäischen Ländern und gibt einen Überblick der Ergebnisse und Schlussfolgerungen aus BYPAD. Außerdem werden einige BYPAD Städte inklusive deren Erfahrungen mit BYPAD vorgestellt.

6. BYPAD: TOTALES QUALITÄTSMANAGEMENT IN DER RADVERKEHRSPOLITIK

6.1 Audits und Benchmarking

Alle bekannten Prozesse die in Unternehmen, Forschungseinrichtungen oder auch Staatlichen Behörden zur Verbesserung von Produkten oder Dienstleistungen dienen, basieren immer auf einer Auswahl bestimmter Kriterien und Benchmarks, die die Stärken und Schwächen der jeweiligen Organisation aufzeigen. Diese Prozesse sind Audit-Methoden. Wenn man die gleiche Audit-Methode wiederholt und in möglichst vielen verschiedenen Organisationen anwendet entsteht ein umfangreicher Kriterienkatalog, der eine Zuordnung der eigenen Qualität ermöglicht. Die besten Beispiele hierfür sind Benchmarks.

BYPAD zielt genau in diese Richtung ab. In einer standardisierten Vorgehensweise werden Qualitätsstandards definiert, die sich aus allen verschiedenen Aspekten der Radverkehrspolitik zusammensetzen. Auf Basis der Einschätzung kann sich die jeweilige Stadt oder Region neue Ziele in Hinsicht auf eine verbesserte Radverkehrspolitik setzen. Wird der Audit-Prozess regelmäßig wiederholt kann klar

festgestellt werden in welchen Bereichen der Radverkehrspolitik bereits Fortschritte erzielt werden konnten, und welche Bereiche noch ausgebaut werden sollten.
Somit bildet das Audit Werkzeug gleichzeitig ein perfektes Beobachtungsinstrument über einen längeren Zeitraum.

6.2 Totales Qualitätsmanagement

Als Qualitätsmanagement wird das Zusammenspiel aller Methoden, Techniken, Prozesse uns Systeme bezeichnet, das eine Verbesserung der Qualität von Produkten und Dienstleistungen bewirkt. Kompetentes Personal, aktive Weiterbildung der MitarbeiterInnen, Evaluierung der internen Kommunikationsprozesse und ein gute funktionierendes finanzielles Management sind alles wesentliche Bausteine des Qualitätsmanagements.

Findet Qualitätsmanagement systematisch statt und werden alle betroffenen Personen eingebunden spricht man von Totalem Qualitätsmanagement oder TQM. Die internationale ISO Norm 8402 definiert TQM folgendermaßen:
„Ein Managementansatz einer Organisation bei dem Qualitätsverbesserung das Hauptziel darstellt und der auf Partizipation aller MitarbeiterInnen beruht. Ziel ist ein langfristiger Erfolg der einerseits auf der Zufriedenheit der Kunden und andererseits auf einem positiven Aspekten für die Mitarbeiter und für die Gesellschaft beruht.“

Die heutigen Methoden und Modelle, wie ISO oder EFQM, knüpfen genau hier an: sie konzentrieren sich auf den totalen bzw. ganzheitlichen Ansatz. Wo früher Qualitätsmanagement als eigenes und teilweise sogar abgegrenztes Modell betrachtet wurde (z.b. Verbesserung des Finanzsystems) stellen die heutigen Methoden die Integration der (Firmen)Politik und die Integration der Gesamtorganisation in den Vordergrund.

Ein wesentlicher Unterschied zwischen den oben genannten Audit-Systemen ISO 9000 und EFQM liegt im Audit Ansatz.

6.3 ISO-Zertifizierung (statische Qualitätskontrolle)

Bei der ISO-9000 Serie muss die Organisation eine spezielle Liste an Kriterien und Standards erfüllen um die ISO-Zertifizierung zu erhalten. Werden alle Kriterien Erfüllt, wird das Unternehmen als qualitativ hochwertig angesehen und erhält das ISO-9000 Zertifikat. Heutzutage können fast alle größeren Unternehmen ein ISO Zertifikat vorweisen.

Dieses Audit bestätigt, dass die Qualitätsanforderungen zu einem bestimmten Zeitpunkt, zum Zeitpunkt der Zertifizierung, erfüllt wurden. Jedoch wird im Rahmen der ISO Zertifizierung die Firmenpolitik nicht als dynamischer Prozess angesehen. Das Unternehmen kann nicht feststellen ob die Qualität ihrer Produkte oder ihrer Dienstleistungen verbessert wurde und wie die Entwicklung in der Zukunft aussehen könnte. Der ISO Ansatz ist eine *statische Qualitätskontrolle*.

6.4 EFQM (dynamischer Ansatz)

Im Gegensatz zur statischen Qualitätskontrolle, bei der die Qualität durch festgesetzte Kriterien überprüft wird, betrachtet EFQM Qualitätsmanagement als einen dynamischen Prozess. Seit der Krise Ende der 80er Jahre stellt EFQM ein anerkanntes Modell im Geschäftsbereich dar.

Der zentrale Ansatz des EFQM-Modells ist, dass eine Firmenpolitik nur dann erfolgreich sein kann, wenn die KundInnen (oder NutzerInnen), die Angestellten, das Management und die gesamte Betriebsorganisation zufrieden sind. Der Erfolgsfaktor hängt vom gesamten Managementprozess ab.

Ein methodisch wichtiges Charakteristikum stellt die *Selbst-Evaluierung* dar, bei der das Management, die Angestellten und die NutzerInnen aktiv beteiligt sind.

Das EFQM-Modell umfasst neun inhaltliche Bereiche. Fünf der Bereiche beschäftigen sich mit den Organisationsstrukturen innerhalb des Unternehmens, die anderen vier Bereiche behandeln die Ergebnisse beziehungsweise den Output, wobei alle neun Bereiche im Zusammenhang stehen. Zufriedene NutzerInnen und Angestellte sowie einen positive Assoziation in der Gesellschaft können nur durch eine zielorientierte Führung erreicht werden, die Akzente in der Firmenpolitik und Firmenstrategie setzt (Radverkehrspolitik), die sich im Management der Angestellten und im Management der Mittel sowie der Prozesse bemüht, um gute Endresultate zu erreichen (innovative Radverkehrsmaßnahmen).

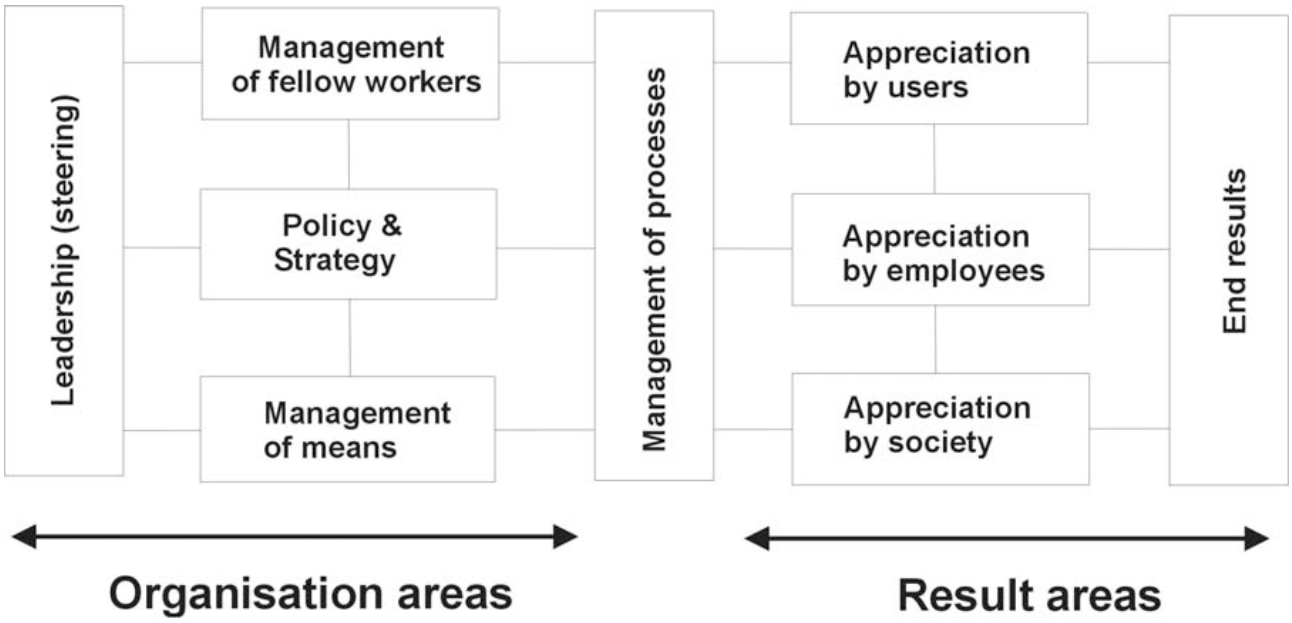


Abbildung 1: EFQM-Modell

Für ein Qualitätsmanagement-Werkzeug für Radverkehrspolitik müssen außerdem folgende Aspekte berücksichtigt werden:

- Die Radverkehrspolitik in einer Stadt oder Gemeinde ist ein dynamischer Prozess (z.B. werden die Anforderungen der NutzerInnen stetig steigen)
- Gute Erfolge in der Radverkehrspolitik (z.B. hoher Radverkehrsanteil, wenig Radunfälle) sind sowohl von einer guten Gesamtorganisation als auch von den Aktivitäten in der Radverkehrsrealität (Infrastruktur, Kampagnen, ...) abhängig
- Die Evaluierung der Radverkehrspolitik sollte von direkt involvierten erfolgen: NutzerInnen, die zuständigen administrativen Bearbeiter/Abteilungen und die zuständigen PolitikerInnen. So ein Selbstevaluierungsprozess kann von einem externen Auditor begleitet werden.

7. DIE BYPAD-METHODE

BYPAD basiert auf dem EFQM Ansatz und hat diesen zur Verwendung für (lokale) Radverkehrspolitik angepasst. Mit Hilfe von BYPAD können Gemeinden einen Prozess zur kontinuierlichen Qualitätsverbesserung in der Radverkehrspolitik starten. Dafür kombiniert BYPAD kognitive, kommunikative und Lernelemente. Die quantitative Einschätzung der einzelnen Bereiche der Radverkehrspolitik unterstützt vor allem bei der Überzeugung der Rationalisten (kognitives Element). Die Diskussionen über Radverkehrspolitik zwischen den einzelnen Teilnehmern der Evaluationsgruppe, das heißt zwischen EntscheidungsträgerInnen, PolitikerInnen, administrativem Personal und den NutzerInnen stärkt den politischen Willen die Radverkehrspolitik zu verbessern (kommunikatives Element). Dass die Einschätzung der Qualität der Radverkehrspolitik von einem externen Auditor moderiert und begleitet wird, und somit externes Know-How mit einfließt, stärkt den Lerneffekt (Lernelement). Die regionalen und internationalen Seminare sowie auch die Datenbank der Guten Beispiele tragen ebenso zum Lerneffekt bei.

7.1 BYPAD – Ein dynamischer Prozess

BYPAD betrachtet Radverkehrspolitik als einen dynamischen Prozess bei dem, damit er erfolgreich ist, verschieden Komponenten zusammenspielen müssen. BYPAD betrachtet nicht nur die Ergebnisse der jeweiligen Radverkehrspolitik sondern auch ob und wie die jeweiligen Prozesse in die politischen und administrativen Strukturen eingebettet sind. Gibt es definierte Ziele in der Radverkehrspolitik? Ist die ausgewählte Strategie die geeignete um die definierten Ziele zu erreichen? Sind die zugeteilten Ressourcen (finanziell und personell) mit den definierten Zielen abgestimmt und ist eine langfristige Finanzierung gesichert? Wird Radverkehrspolitik auf ein paar einzelne Infrastrukturmaßnahmen beschränkt oder gibt es ein ganzheitliches Paket an radverkehrsfördernden Maßnahmen, die auch Einschränkung des Autoverkehrs umfassen? Gibt es übergreifende Kooperationen mit strategisch wichtigen Partnern? Wie wird sicher gestellt, dass die gesetzten Maßnahmen auch wirklich die definierten Ziele treffen?

BYPAD unterscheidet 9 Module, deren Inhalte und Qualitäten separat definiert werden (s. Abbildung 2). Jedem Modul wird eines von vier Qualitätslevel, der BYPAD Entwicklungs-Stufen, zugeteilt. Die Ergebnisse aller Module zusammen ergeben den übergeordneten Qualitätslevel der jeweiligen Radverkehrspolitik. Die Gemeinde definiert dann auf Basis der Ergebnisse der einzelnen Module Qualitätsziele sowie konkrete Umsetzungsmaßnahmen. Außerdem kann die Entwicklung der lokalen Radverkehrspolitik über einen längeren Zeitraum beobachtet werden.

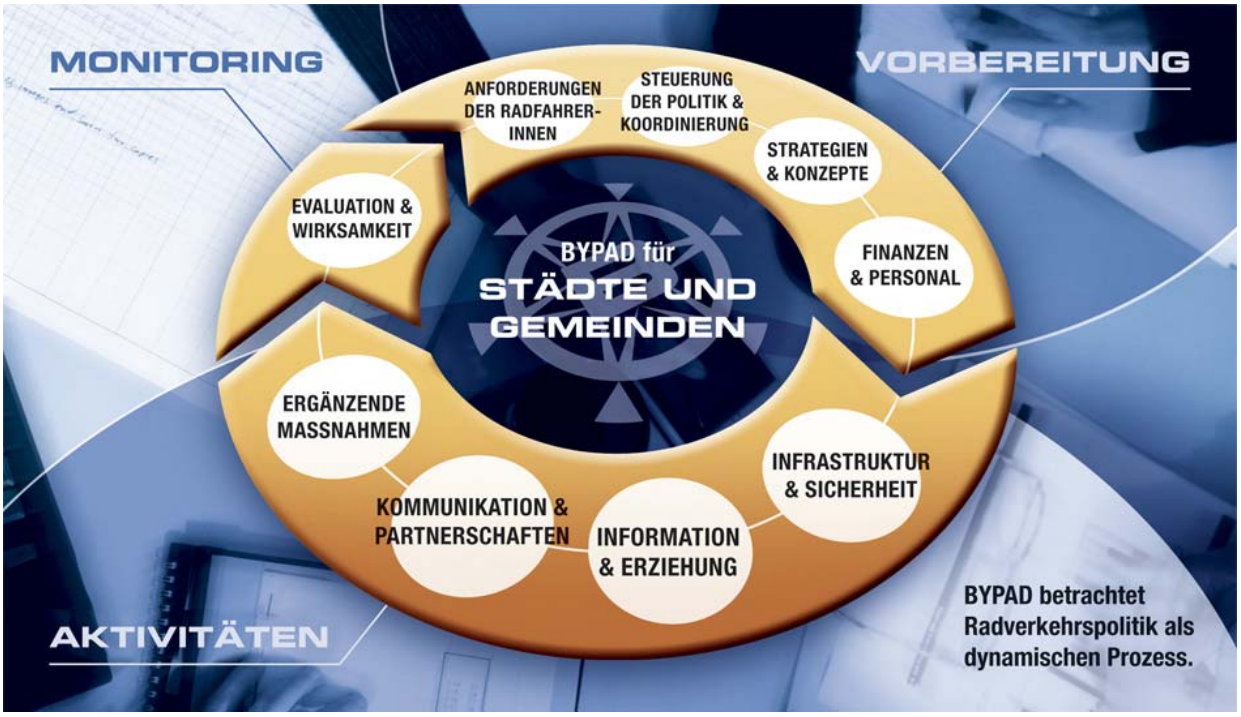


Abbildung 2: BYPAD Module

7.2 Stufen der Entwicklung

Das zentrale Element von BYPAD ist der, Fragebogen, der aus 30/22/18 Fragen besteht, die alle Bereiche der Radverkehrspolitik für Regionen/Städte/Gemeinden abdecken. Der Fragebogen enthält pro Modul eine Anzahl von Fragen mit gegebenen Antworten. Die Antworten bestehen aus Erfolgreich implementierten Maßnahmen aus europäischen Städten. Pro Antwort ist ein Qualitätslevel zugeordnet (siehe Abbildung 3). Der Qualitätslevel ist Null, wenn im Radverkehrsbereich bisher keinerlei Maßnahmen getroffen wurden. BYPAD stellt also eine Art Spiegel der derzeitigen Radverkehrspolitik dar. Es deckt die schwächsten Glieder in der BYPAD Kette auf und zeigt wo Verbesserungen notwendig und möglich sind. Mit Ausfüllen des Fragebogens wird der jeweiligen Stadt (Gemeinde, Region) außerdem aufgezeigt, was getan werden könnte um das nächste Qualitätslevel zu erreichen.

Abbildung 3: BYPAD Stufen der Entwicklung

Die Stufen der Entwicklung sind:

Level 1: Ad hoc orientierter Ansatz
Das Feuerwehr Prinzip: Radverkehrspolitik ist hauptsächlich auf Problemlösung reduziert. Maßnahmen werden praktisch nur im Bereich der Infrastruktur oder der Verkehrssicherheit an ausgewählten Punkten getroffen. Die Radverkehrspolitik befindet sich gesamt gesehen auf einem sehr niedrigen Niveau, was durch niedrige, unregelmäßige Budgets und wenig sowie nicht sehr geschultes administratives Personal mit kaum Kompetenzen widergespiegelt wird. Qualität ist wenn dann nur das Ergebnis der Bemühungen einzelner.

Level 2: Isolierter Ansatz
Das Robinson Crusoe Prinzip: Es gibt eine Radverkehrspolitik jedoch ist diese weder in die Gesamtverkehrspolitik noch in andere politische Bereiche wie Raumplanung, Gesundheit oder Umwelt eingegliedert. Eine gute Infrastruktur ist das Hauptanliegen der Politik, zusätzlich können einzelne ergänzende Maßnahmen getroffen werden.
Die Charakteristika der Radverkehrspolitik sind eine geringe Nutzung vorhandener Radverkehrspolitik über einen längeren Zeitraum beobachtet werden.
übergeordnete Vereinbarungen mit nur zwangsmäßigem Charakter und Maßnahmen die oft kontraproduktiv wirken da sie nicht mit den Anforderungen anderer Verkehrsteilnehmer abgestimmt sind sowie nicht in andere politische Bereiche integriert sind. Eine Kontinuität ist nicht sicher gestellt.

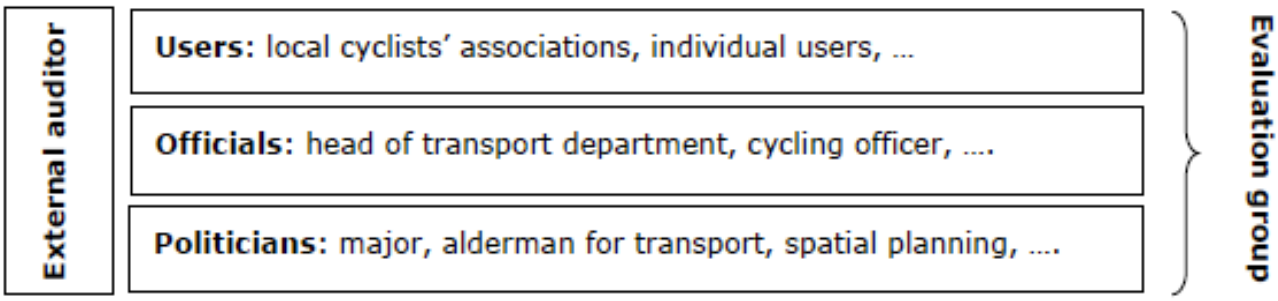
Level 3: System orientierter Ansatz
Wir ziehen an einem Strang: Radverkehr wird als ein System angesehen, das in die Gesamtverkehrspolitik integriert ist. Der politische Wille den Radverkehr zu unterstützen ist durch eine lokale Radverkehrsstrategie und einem angemessenen Budget manifestiert.

Die Radverkehrsstrategie umfasst ein breites Spektrum an verschiedenen Maßnahmen; unterschiedliche Zielgruppen werden mit maßgeschneiderten Maßnahmen angesprochen, zum Teil in Kooperation mit anderen öffentlichen und privatwirtschaftlichen Partnern. Radverkehrspolitik basiert auf einer guten statistischen Datenbasis sowie auf der Kenntnis der Anforderungen der NutzerInnen, jedoch immer noch auf Projektebene mit einer begrenzten Laufzeit.

Level 4: Integrierter Ansatz
Das Gewinner Team: Radverkehrspolitik wird als permanente Aufgabe mit starkem Bezug zu anderen politischen Bereichen gesehen. Maßnahmen zur Förderung des Radverkehrs werden durch Maßnahmen zur Eindämmung des Autoverkehrs ergänzt. Es gibt eine starke politische Unterstützung, eine gute Führung, eine regelmäßiges Budget, ausreichend und geschultes Personal sowie umfassende Expertisen. Systematisches Netzwerken sowie regelmäßiger Austausch von Know-how und Erfahrungen mit internen und externen Akteuren sichert und hebt den Qualitätsstandard. Die Charakteristika der Radverkehrspolitik sind die Verfügbarkeit hochqualitativer Daten, regelmäßige Evaluierungen sowie strategische Kooperationen mit dem Ziel, dass die Partner langfristig ihren eigenen Beitrag zur lokalen Radverkehrspolitik leisten.

BYPAD Evaluierungsgruppe
Ein zentrales Element im BYPAD Ansatz ist, dass der gesamte Evaluierungsprozess sowie die Qualitätsverbesserung durch die lokale Evaluierungsgruppe durchgeführt wird. Die Evaluierungsgruppe setzt sich aus den für Radverkehr zuständigen PolitikerInnen, den Entscheidungsträgern beziehungsweise dem administrativem Personal das sich mit Radverkehr beschäftigt sowie lokalen RadfahrerInnen und Radverkehrsorganisationen, die das „Produkt“ der Radverkehrspolitik täglich nutzen, zusammen. Durch diese Zusammensetzung stellt BYPAD sicher, dass die lokale Radverkehrspolitik aus unterschiedlichen Sichtweisen eingeschätzt und beurteilt werden kann.

Die Evaluierungsgruppe sucht nach Stärken und Schwächen in der Radverkehrspolitk um darauf aufbauend im Konsens Bereiche zu definieren, in denen Verbesserungen notwendig und möglich sind. Der Audit Prozess ist von einem externen Berater begleitet, der ein zertifizierter BYPAD Auditor ist.



BYPAD Prozess
Zu Beginn des Evaluierungsprozesses füllt jeder Teilnehmer der Evaluierungsgruppe den BYPAD Fragebogen individuell aus.

Für jeden einzelnen Aspekt der Radverkehrspolitik vergibt jedes einzelne Mitglied der Evaluierungsgruppe eine Qualitätsleveleinschätzung zwischen 1 und 4. In einem darauf folgendem Treffen der gesamten Evaluierungsgruppe werden die Einschätzungen besprochen. Das Ziel des gemeinsamen Treffens ist im Konsens die Stärken und Schwächen der derzeitigen Radverkehrspolitik aufzuzeigen sowie gemeinsam ein Qualitätslevel pro Frage des Fragebogens zuzuordnen. Basierend auf den Ergebnissen dieser Diskussion entwickelt die Evaluierungsgruppe in einem weiteren Treffen außerdem einen Aktionsplan für die zukünftige Radverkehrspolitik.

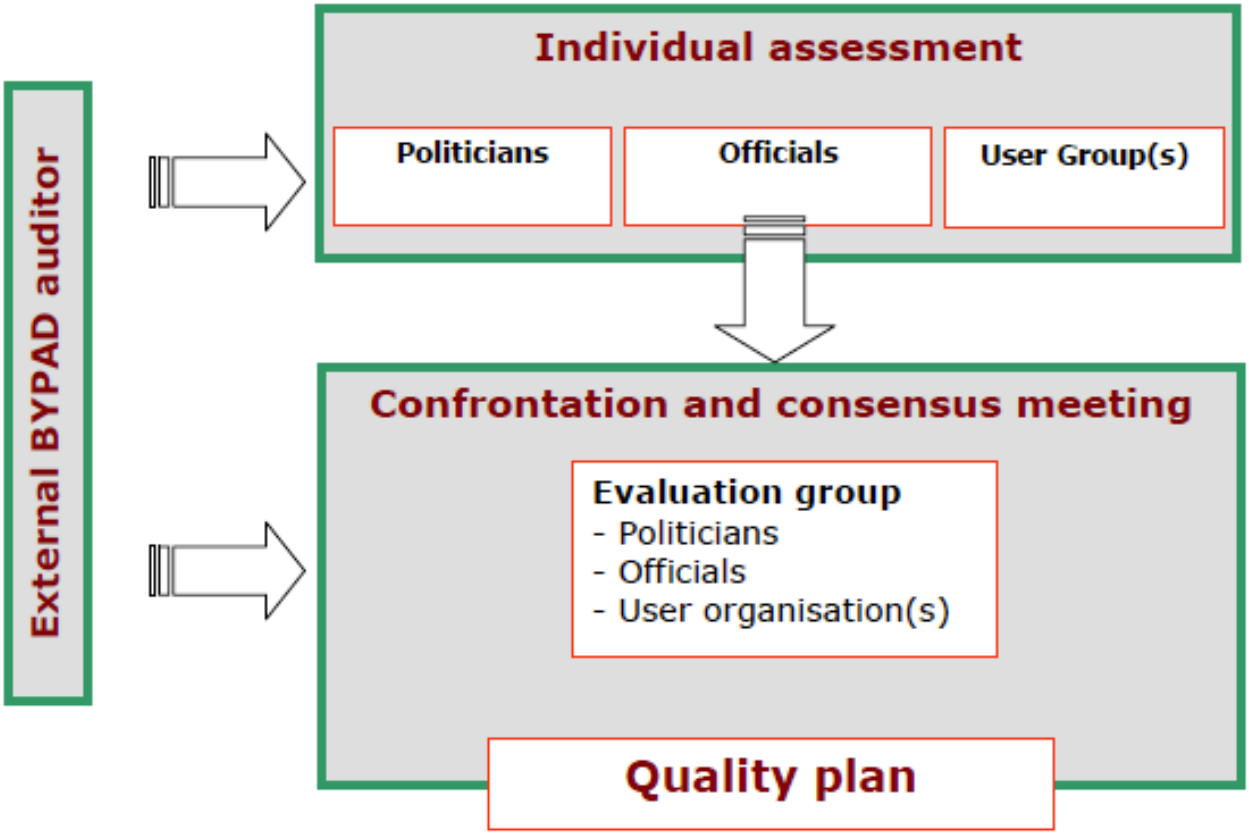


Abbildung 4: BYPAD Prozess

<u>Zertifizierung der Qualität</u>

Als ein Ergebnis des BYPAD Audit Prozesses erhält die jeweilige Gemeinde/Stadt/Region eine Levelzuordnung pro Modul sowie für die gesamte Radverkerhrspolitik. Diese Levelzuordnungen zeigen genau auf in welchen Bereichen die Stärken und in welchen die Schwächen ihrer Radverkehrspolitik liegen. Der Zwischen- und der Endbericht, die vom Auditor geschrieben werden, sind eine detaillierte Darstellung der Radverkehrspolitik sowie eine Beschreibung des Auditprozesses. Im Aktionsplan sind die festgelegten Ziele, die Hauptarbeitsbereiche und die von der Evaluierungsgruppe vereinbarten Maßnahmen dokumentiert.

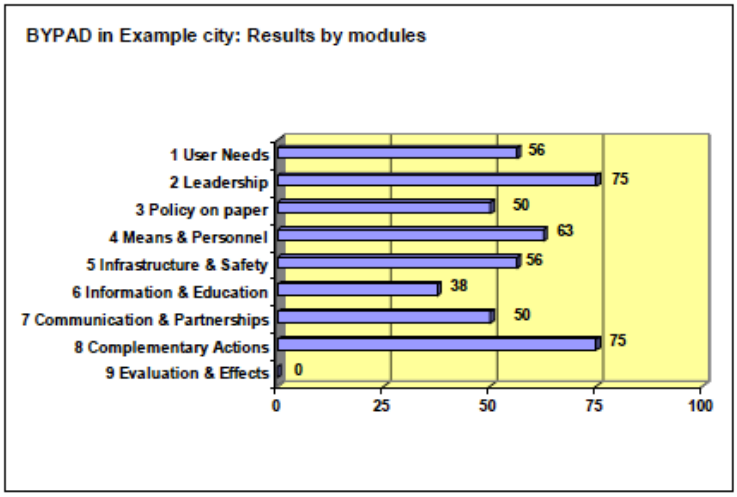


Abbildung 5: BYPAD Punkte

Nach Abschluss des BYPAD Audits erhält die Gemeinde/Stadt/Region das BYPAD Zertifikat. Dieses Zertifikat bestätigt das die Entscheidungsträger, die Administration sowie die Bürger sich zu einer modernen, hochqualitativen Radverkehrspolitik bekennen und sich aktiv dafür einsetzen.

BYPAD Zeremonie auf der Velo-City 2007 in München.

BYPAD bietet als Werkzeug außerdem die Möglichkeit die Verbesserungen in der Radverkehrspolitik über einen längeren Zeitraum objektiv zu beobachten. Wiederholte Anwendungen von BYPAD geben der Gemeinde/Stadt/Region eine fundierte Basis ihre Radverkehrspolitik umzusetzen. Für viele anwendenden Gemeinden/Städte/Regionen war BYPAD der Startschuss für Verbesserungsmaßnahmen in der lokalen Radverkehrspolitik.

Anerkannte Methode

Die nationalen Radverkehrsstrategien von Deutschland, der Tschechischen Republik und von Österreich empfehlen BYPAD für Gemeinden und Städte als Qualitätsmanagement Werkzeug um die Radverkehrspolitik zu verbessern. In der Tschechischen Republik ist das Zuerkennen finanzieller Unterstützung direkt an die Anwendung von BYPAD gekoppelt. In Nordrhein-Westfalen (Deutschland) wird die Anwendung von BYPAD durch die Regierung kofinanziert.

BYPAD ist kein Schönheitswettbewerb

Das übergeordnete Ziel von BYPAD ist, die Radverkehrspolitik einer Gemeinde, Stadt oder Region durch einen internen Evaluierungsprozess sowie durch den Austausch von Erfahrungen mit anderen europäischen Städten und Regionen zu verbessern. Die Gemeinde/Stadt/Regionen entscheidet sich außerdem bewusst Stärken und Schwächen in der eigenen Radverkehrspolitik aufzuzeigen.

Für Gemeinden/Städte und Regionen innerhalb des BYPAD Netzwerkes ist es wohl außerdem attraktiv die Ergebnisse untereinander zu vergleichen und somit zu sehen wo man ungefähr steht. Die typische Frage, die fast jeder Bürgermeister stellt ist: „Sind wir die beste europäische Radstadt oder wer ist sonst die beste europäische Radstadt?“ Diese Frage ist jedoch nicht mit BYPAD zu beantworten. Folgende Faktoren machen einen direkten Vergleich der unterschiedlichen Städte in unterschiedlichen Ländern unmöglich:

- Geographie einer Stadt
- Unterschiedliche BYPAD-Auditoren
- Persönliche Meinungen der Teilnehmer der Evaluierungsgruppe
- Unterschiedliche Radkulturen und Radstrukturen

BYPAD sollte als ein internes Evaluierungswerkzeug angesehen werden, das die eigene Radverkehrspolitik verbessern kann. Die eigenen Auditergebnisse alle paar Jahre miteinander zu vergleichen ist viel aufschlussreicher als die Ergebnisse unterschiedlicher Städte nebeneinander zu stellen, da man hier Äpfel mit Birnen vergleichen würde (siehe Abbildung 6: Vergleich der BYPAD Ergebnisse in Gent 2001-2004). Die Ergebnisse anderer Städte sollte man sich nur aus Interesse ansehen, und unbedingt berücksichtigen, dass kein direkter Vergleich möglich ist.

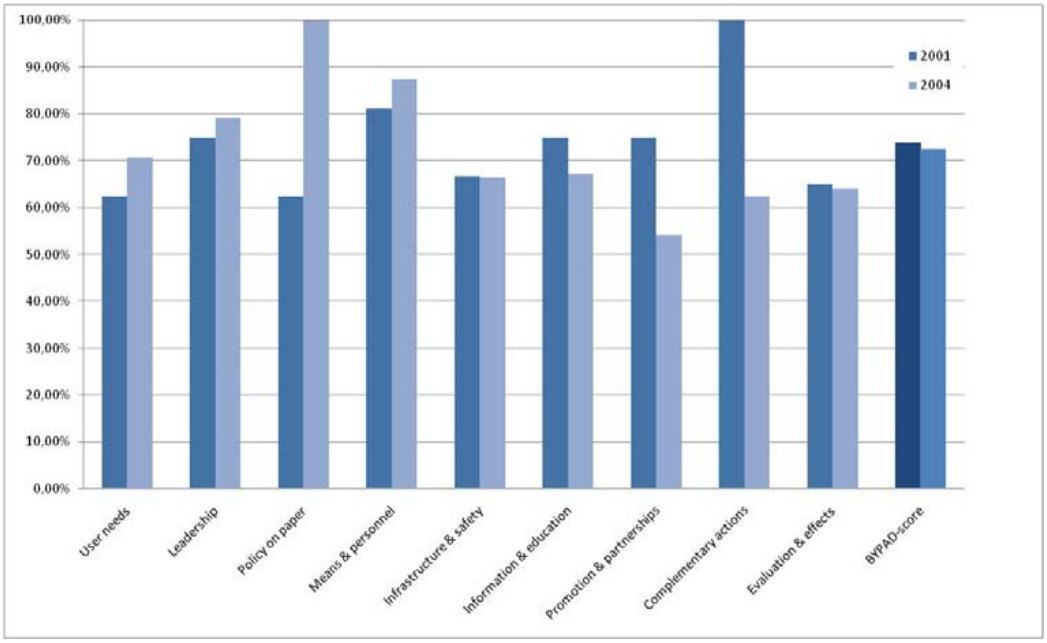


Abbildung 6: Vergleich der BYPAD Ergebnisse in Gent 2001-2004

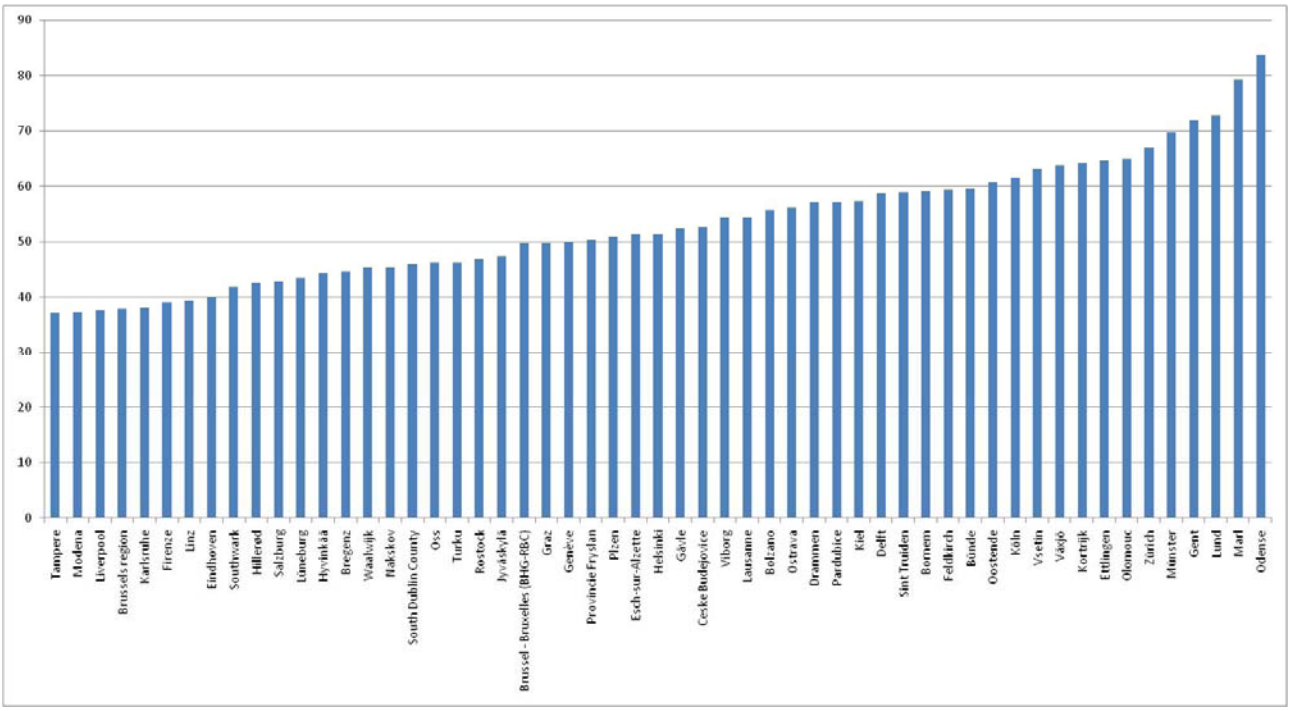


Abbildung 7: Ergebnisse der BYPAD Städte

8. BYPAD IN EUROPA

8.1 EU-Projekte

BYPAD wurde im Rahmen der SAVE und STEER Programm finanziell von der Europäischen Union unterstützt. SAVE und STEER sind Programme die Projekte im Bereich nachhaltigem städtischen Verkehr fördern. Das erste BYPAD Projekt, in dem die grundlegende Methode entwickelt wurde startete 1999, seitdem wurde BYPAD mit Unterstützung der Europäischen Kommission kontinuierlich weiter entwickelt. Inzwischen haben mehr als 100 Gemeinden, Städte und Regionen in 21 europäischen Ländern BYPAD angewandt, begleitet von 58 zertifizierten Auditoren aus diesen Ländern.

8.2 BYPAD 1999-2001: Forschung

Das BYPAD Werkzeug wurde von einem internationalen Experten-Konsortium[1] im Rahmen eines EU-Projektes (100% gefördert) von 1999 bis 2001 entwickelt und in 7 europäischen Städten getestet: Gent, Graz, Troisdorf, Birmingham, Zwolle, Ferrara und Grenoble. Das erste BYPAD Werkzeug war für mittelgroße und große Städte konzipiert. Auf Grund der begeisterten Rückmeldungen der Teststädte wurde ein Nachfolgeprojekt - BYPAD+ - aufgesetzt, das 2003 startete.

8.3 BYPAD+ 2003-2004: Training und Verbreitung

Das Ziel des Nachfolgeprojektes BYPAD+[2] (50% von der EU gefördert) war die Methode zu verbessern, sowie BYPAD europaweit zu implementieren. Das BYPAD Werkzeug wurde vereinfacht und ein Trainings- bzw. Ausbildungsprogramm wurde aufgesetzt. Außerdem wurde die Methode aktiv durch regionale Workshops, internationale Seminare, einer interaktiven Webseite sowie regelmäßige Newsletter verbreitet. Mit Ende dieses EU-Projektes, Ende 2004, bestand ein internationales Netzwerk von zertifizierten BYPAD Auditoren in 16 europäischen Ländern sowie 60 erfolgreich implementierte BYPAD-Audits in europäischen Städten.

8.4 BYPAD-Plattform 2006-2008: Weiterentwicklung der Methode und Verbreitung

Das letzte EU-Projekt[3] (50% gefördert) startete 2006 und lief bis September 2008. Ziel dieses Projektes war das BYPAD Werkzeug für Gemeinden und Regionen zu erweitern sowie das Netzwerk von Auditoren, Gemeinden, Städten und Regionen hin zum zentraleuropäischen Raum und den neuen Mitgliedsstaaten auszubauen.
Ein BYPAD-Gemeinden, ein BYPAD-Städte und ein BYPAD-Regionen Werkzeug wurde entwickelt und 37 neue BYPAD-Auditoren absolvierten das BYPAD Training. Die bestehenden BYPAD-Auditoren erhielten ein Experten-Training um ihre Erfahrungen sowie neue Entwicklungen im Radverkehrsbereich sowie in der Radverkehrspolitik auszutauschen. Im September 2008 war BYPAD in mehr als 100 europäischen Gemeinden, Städten und Regionen in 21 Ländern von 58 zertifizierten Auditoren implementiert.

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[1] Langzaam Verkeer, Belgien (Koordinator); FGM-AMOR, Österreich; velo:consult, Schweiz; European Cyclists‘ Federation
[2] gleiches Konsortium wie beim ersten Projekt
[3] Vectris, Belgien (Koordinator); FGM-AMOR, Österreich; IMOB-Hasselt Universität, Belgien; Velo:Consult, Schweiz; Ligtermoet & Partners, Niederlande; CDV, Tschechische Republik

Jänner 2009: BYPAD-Board als unabhängige Organisation

Das BYPAD Plattform Projekt war das letzte EU-geförderte BYPAD Projekt. Seit Oktober 2008 muss BYPAD auf eigenen Beinen stehen. Um den BYPAD Aktivitäten eine Kontinuität zu verleihen haben ein paar der BYPAD-Gründungspartner das BYPAD-Board geschaffen. Das BYPAD-Board kümmert sich um: Update der Auditlisten, Ausbildungen für neue Auditoren, Aktualisieren der Datenbank der Guten Beispiele, Zertifizierung der Städte und Regionen, Kommunikation (Webseite, Newsletter,...), Organisation von Workshops, Exkursionen, etc. Das BYPAD-Board besteht aus: FGM-AMOR (Österreich), Velo:Consult (Schweiz), TIMENCO (Belgien und Niederlande), CDV (Tschechische Republik) und dem ECF. Die Finanzierung der Aktivitäten des BYPAD-Boards erfolgt über die Mitgliedsbeiträge der Auditoren sowie der Gebühren der Gemeinden, Städte und Regionen, die BYPAD anwenden.

8.5 BYPAD in Gemeinden, Städten und Regionen

Um die Evaluierung der Radverkehrspolitik im Rahmen eines BYPAD Audits durchführen zu können wurden drei verschiedene Fragebögen entwickelt. Basierend auf der Größe einer Gemeinde, Stadt oder Region und basierend auf dem Entwicklungsstand im Bereich Radverkehrspolitik werden unterschiedliche Werkzeuge zur Einschätzung der Radverkehrspolitik benötigt. Es wurde jeweils ein Fragebogen für Gemeinden, einer für Städte und einer für Regionen entwickelt:

Gemeinden

Unter Gemeinden werden im Rahmen von BYPAD administrative Gebietseinheiten von bis zu 50.000 Einwohnern verstanden, wobei diese Maßzahl von Land zu Land sehr unterschiedlich sein kann. Bezüglich der administrativen Organisation hat eine Gemeinde personell gesehen eine eher kleinere Administrationsebene, etwa 1-2 Leute sind für alle Aufgaben im Verkehr (inklusive Radverkehr) und Stadtplanung zuständig. Eine Gemeinde weist einen (eingeschränkten) urbanen Charakter auf.
Der Fragebogen für Gemeinden umfasst 18 Fragen. Der Gemeinde-Fragebogen wurde 2006 entwickelt. Im Zeitraum von 2006-2008 wurde in 13 Gemeinden BYPAD implementiert.

Städte

Unter Städten und städtischen Agglomerationen werden im Rahmen von BYPAD größere urbane Einheiten gesehen, die eine eigenständige integrierte Verkehrspolitik verfolgen. In der Praxis kann eine städtische Agglomeration über administrative Grenzen hinausgehen, für BYPAD ist es jedoch grundlegend, dass eine gemeinsame Verkehrspolitik verfolgt wird. Als Mindestzahl bezüglich Einwohner wurde die Obergrenze von Gemeinden festgelegt, das heißt 50.000, wobei diese Zahl wiederum von Land zu Land stark variieren kann (so ist etwa eine Agglomeration mit 50.000 Einwohner eine klein bis mittelgroße Stadt in Deutschland, jedoch eine große Stadt in Slowenien).
Die Administrationsebene einer Stadt weist komplexere Strukturen auf und umfasst verschieden Abteilungen die sich mit Verkehrs, Raumplanung, Bildung und Umwelt befassen.
Der Fragebogen für Städte umfasst 30 Fragen. Der Fragebogen wurde 1999 erstmalig entwickelt und seitdem regelmäßig überarbeitet. Im Zeitraum von 1999-2008 wurde in 88 Städten BYPAD durchgeführt.

Regionen
Regionen weisen eine übergeordnete administrative Ebene auf. Abhängig vom jeweiligen Land können dies zum Beispiel Landkreise, Bezirke oder auch Bundesländer sein.
Regionen haben übergeordnete Aufgaben im Bereich Infrastruktur- und Verkehrsplanung, Raumplanung und Bildung. Der konkrete Aufgabenbereich variiert von Land zu Land, im Bereich Radverkehrsplanung können 2 Hauptrichtungen unterschieden werden:

Typ A: Umsetzung direkter Radverkehrs-Maßnahmen, zum Beispiel Aufbau und Bewerbung eines regionalen Radverkehrsnetzes mit Radverkehrsanlagen auf/entlang Regionalstraßen für den Alltags- und/oder den Freizeitradverkehr
Typ B: Umsetzung einer indirekten Radverkehrspolitik durch die Stimulierung von Radverkehrsmaßnahmen in den einzelnen Gemeinden, zum Beispiel durch Bereitstellung von finanziellen Mitteln, Wissen und methodischen Werkzeugen.
Der BYPAD-Regionen Fragebogen umfasst 23 Fragen. Der Fragebogen wurde 2006 entwickelt, im Zeitraum von 2006 bis 2008 wurden 18 Regionen mit Hilfe dieses Fragebogens auditiert.

Die Tabelle 1 gibt einen Überblick der Gemeinden, Städte und Regionen, die BYPAD im Zeitraum von 1999 bis 2008 implementiert haben. Da das BYPAD Werkzeug in erster Linie ein Selbstevaluierungswerkzeug ist werden die meisten dieser Gebietskörperschaften BYPAD wieder verwenden um die Entwicklung in ihrer Radverkehrspolitik zu sehen.

Nr.	Gemeinde/Stadt/Region	Land	Jahr
1	Linz	Österreich	2001
2	Graz	Österreich	2000
3	Salzburg	Österreich	2002
4	Schwechat	Österreich	2003
5	Graz	Österreich	2003
6	Bregenz	Österreich	2005
7	Feldkirch	Österreich	2006
8	Land Steiermark	Österreich	2006
9	Dornbirn	Österreich	2007
10	Lustenau	Österreich	2007
11	Gent	Belgien	2000
12	Kortrijk	Belgien	2003
13	Oostende	Belgien	2004

Nr.	Gemeinde/Stadt/Region	Land	Jahr
14	Brüssel	Belgien	2004
15	Gent	Belgien	2006
16	Brüssel	Belgien	2006
17	Sint Truiden	Belgien	2006
18	Bornem	Belgien	2007
19	Pardubice	Tschechische Republik	2003
20	Ostrava	Tschechische Republik	2003
21	Olomouc	Tschechische Republik	2003
22	Cseke Budjovice	Tschechische Republik	2003
23	Vsetin	Tschechische Republik	2004
24	Plzen	Tschechische Republik	2004
25	Region Usti	Tschechische Republik	2008
26	Region Hradec Králové	Tschechische Republik	2008
27	Region Zentral Böhmen	Tschechische Republik	2008
28	Region Zlin	Tschechische Republik	2008
29	Region Olomouc	Tschechische Republik	2008
30	Region Süd-Böhmen	Tschechische Republik	2008
31	Region Süd-Moravia	Tschechische Republik	2008
32	Viborg	Dänemark	2003
33	Odense	Dänemark	2003
34	Nakskov	Dänemark	2003
35	Hilerod	Dänemark	2003
36	Tartu	Estland	2006
37	Tallinn	Estland	2007
38	Tampere	Finnland	2003
39	Jyväskylä	Finnland	2003
40	Helsinki	Finnland	2003

Nr.	Gemeinde/Stadt/Region	Land	Jahr
41	Hyvinkää	Finnland	2004
42	Turku	Finnland	2004
43	Grenoble	Frankreich	2000
44	Montbeilard	Frankreich	2003
45	Versailles	Frankreich	2003
46	Grenoble	Frankreich	2006
47	Troisdorf	Deutschland	2000
48	Bünde	Deutschland	2003
49	Marl	Deutschland	2003
50	Münster	Deutschland	2003
51	Ettingen	Deutschland	2003
52	Köln	Deutschland	2003
53	Karlsruhe	Deutschland	2004
54	Lüneburg	Deutschland	2004
55	Kiel	Deutschland	2004
56	Rostock	Deutschland	2005
57	Troisdorf	Deutschland	2006
58	Unna	Deutschland	2007
59	Kreis Borken	Deutschland	2007
60	Region Süd Dublin	Irland	2004
61	Ferrara	Italien	2000
62	Florenz	Italien	2004
63	Modena	Italien	2004
64	Bozen	Italien	2004
65	Ferrara	Italien	2007
66	Region Mailand	Italien	2007
67	Arese	Italien	2007

Nr.	Gemeinde/Stadt/Region	Land	Jahr
68	Garbagnate Milanese	Italien	2007
69	Cesate	Italien	2007
70	Sesto San Giovanni	Italien	2007
71	Melegnano	Italien	2007
72	San Donato Milanese	Italien	2007
73	Fürstentum Lichtenstein	Liechtenstein	2007
74	Schaan	Liechtenstein	2007
75	Mauren	Liechtenstein	2007
76	Eschen	Liechtenstein	2007
77	Balzers	Liechtenstein	2007
78	Esch-sur-Alzette	Luxemburg	2007
79	Drammen	Norwegen	2004
80	Tczew	Polen	2008
81	Gdansk	Polen	2008
82	Malborg	Polen	2008
83	Seixal	Portugal	2004
84	Beja	Portugal	2004
85	Cascais	Portugal	2004
86	Domzale	Slowenien	2008
87	Brezice	Slowenien	2008
88	Murska Sobota	Slowenien	2008
89	Rogaska Slatina	Slowenien	2008
90	Skofja Loka	Slowenien	2008
91	Region Maribor	Slowenien	2008
92	Region Kranj	Slowenien	2008
93	Ptuj	Slowenien	2008
94	Menorca	Spanien	2006

Nr.	Gemeinde/Stadt/Region	Land	Jahr
95	Mataró	Spanien	2007
96	Donostia	Spanien	2007
97	Lund	Schweden	2004
98	Växjö	Schweden	2004
99	Karlstad	Schweden	2006
100	Gävle	Schweden	2006
101	Falun	Schweden	2006
102	Basel-Stadt	Schweiz	2002
103	Lausanne	Schweiz	2004
104	Gèneve	Schweiz	2004
105	Zürich	Schweiz	2006
106	Region Zürich	Schweiz	2007
107	Zwolle	Niederlande	2000
108	Delft	Niederlande	2003
109	Emmen	Niederlande	2004
110	Waalwijk	Niederlande	2004
111	Eindhoven	Niederlande	2004
112	Oss	Niederlande	2004
113	Zwolle	Niederlande	2007
114	Stadsgewest Haaglanden	Niederlande	2007
115	Provinz Zeeland	Niederlande	2007
116	Provinz Fryslan	Niederlande	2007
117	Birmingham	England	2000
118	Liverpool	England	2004
119	Southwark	England	2004

Tabelle 1: BYPAD-Gemeinden, Städte und Regionen im Zeitraum 1999-2008

Abbildung 8: BYPAD Städte in Europa

Abbildung 9: BYPAD Städte in Spanien und Portugal

Abbildung 10: BYPAD Städte in Zentraleuropa

Abbildung 11: BYPAD Städte in West-Europa

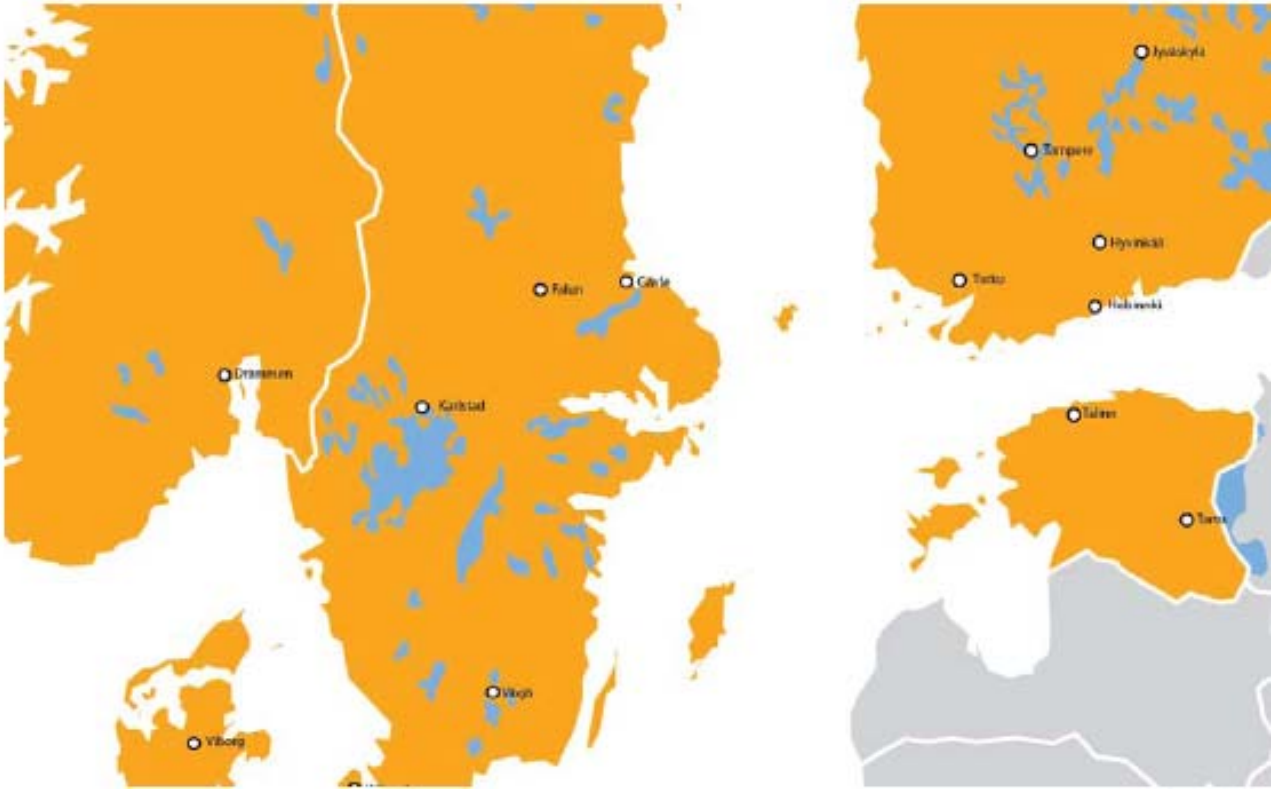

Abbildung 12: BYPAD Städte in Skandinavien

Abbildung 13: BYPAD Städte in Irland und England

8.6 Austausch von Radverkehrs-Expertise

- **Nationale und regionale Workshops in der jeweiligen Landessprache**. Bei diesen Workshops wurden die teilnehmenden Städte und Regionen aktive in die Workshop Arbeit involviert. Spezieller Schwerpunkt war auch, dass neue Städte und Regionen BYPAD kennen lernen und sich von dessen Vorteilen überzeugen können. (Z.B. Recklinghausen, Deutschland für den deutschsprachigen Raum; Genf, Schweiz für den französischsprachigen Raum; Hertogenbosch, Niederlande auf niederländisch; Lund, Schweden für den schwedisch- und dänischsprachigen Raum.)
- **Internationale Seminare und Exkursionen.** Internationale Seminare mit speziellen Schwerpunktthemen des Radverkehrs sowie auch Exkursionen wurden vom BYPAD Konsortium organisiert. Diese Seminare und Exkursionen dienten vor allem dem Austausch zwischen Radverkehrsexperten. (Z.B. Ceske Budejovice/Tschechische Republik 2006, München/Deutschland 2007, Tartu/Estland 2008, …)
- **BYPAD Website**. www.bypad.org ist sowohl eine Informationsseite über BYPAD als auch ein Arbeitsinstrument für die BYPAD-AuditorInnen und BYPAD-Städte und -Regionen. Die Webseite beinhaltet einen öffentlichen Bereich (mit Informationen über die BYPAD-Methode, Kontaktmöglichkeiten, Erfahrungen von Städten, Gute-Beispiele Datenbank) und einen internen Bereich mit Ergebnissen der BYPAD-Audits, Berichte zu den Audits, den BYPAD-Fragebögen, Registrierung für die Gemeinden, Städte, Regionen, etc.

- **Die Datenbank der Guten Beispiele** zeigt Beispiele für alle Qualitätslevels für Radverkehrspolitik von BYPAD Städten und Regionen.

Die drei BYPAD-Fragebögen (Gemeinden, Städte und Regionen) sind in 15 Sprachen erhältlich.
Der BYPAD-Newsletter, der 3mal pro Jahr veröffentlicht wurde, wurde über das BYPAD Netzwerk sowie über die Kontakte der BYPAD-AuditorInnen und Netzwerkpartner verteilt.

WEITERE METHODEN DER EVALUIERUNG

Im Laufe der letzten zehn Jahre stieg das Bewusstsein, dass hochqualitative Radverkehrspolitik notwendig ist. Es wurden Benchmarking Werkzeuge und Indikatoren-Systeme entwickelt, unterschiedliche Maßnahmen und Programme in verschiedenen Ländern evaluiert:

- England: Bechmarking Projekt der CTC (Radverkehrsinitiative)
- Niederlande: Fietsbalans (Radverkehrsbalance) der niederländischen Radverkerhsinitiative
- Schweiz: Indikatoren für radverkehrsfreundliche Städte und Gemeinden (Forschungsprojekt der SVI)
- Deutschland: Evaluierung der Radverkehrspolitiken der Mitgliedsstädte des Städtenetzwerkes „Radverkehrsfreundliche Städte in Nordrhein-Westfalen“ (Region Nordrhein-Westfalen)
- Radverkehrsbericht von Kopenhagen

Jede Methode weist ihren eigenen Ansatz auf und setzt teilweise auch eigene Schwerpunkte. Es spielt natürlich auch eine Rolle, wer der Auftraggeber bzw. Initiator der Evaluierung ist. So ist zum Beispiel die Radverkehrsbalance der Niederlande eine Initiative der niederländischen Interessenvertretung der Radfahrer, die die beste Radverkehrsstadt des Jahres auszeichnen möchten. Gleichzeitig erstellen sie eine Bericht der Radverkehrsqualität und des Radverkehrsklimas in dieser Stadt. Die niederländische Radverkehrsinitiative macht außerdem umfangreiche Pressearbeit auf nationalem Niveau, womit die Radverkehrsstädte einem gewissen Druck unterliegen, hochqualitative Radverkehrspolitik vorzeigen zu können. Das Ergebnis der Radverkehrsbalance klar die Meinung der Nutzervertretung.

In BYPAD sind es nicht die Nutzer die ein Audit initiieren sondern die Gemeinde, Stadt oder Region selbst, die sich bekennt: „Wir wollen unserer Radverkehrspolitik verbessern, und wir verwenden BYPAD verwenden um unseren derzeitigen Stand festzustellen und Verbesserungsmaßnahmen auszuarbeiten.“ Es gibt kaum externen Druck die beste Radverkehrsstadt zu werden, viel mehr ist die eigene Motivation der Region oder Stadt die treiben Kraft.

Die nachfolgenden Tabellen geben einen Überblick der Charakteristiken der einzelnen Evaluierungsmethoden für Radverkehrspolitik.

	BYPAD (Europe)	CTC Benchmarking local cycling policy (UK)	The Cycle Balance (Netherlands)	Benchmarking cycling in towns & villages (Switzerland)	Bike-Friendly cities and towns (Germany)
Initiative implementation	Municipality	Cyclist Union	Cyclist Union	Municipality	Municipality
Object of investigation	Cities, towns and regions	Cities, towns	Cities, towns	Towns	Cities, towns, regions
Parties involved	• politicians • civil servants • users / user group • external supervisor	Facilitator, nominated person authority. At visits also: other officers and users.	Users, officials	Evaluation itself: municipality Later: all people who can be a driving force	Ministry, experts, specialists-group, city
Procedure	1) Collecting prerequisite information 2) self-auditing on the basis of a questionnaire first individually by the 3 groups (politicians, civil servants, user groups) 3) confrontation and consensus meeting 4) draw up a cycling policy quality plan 5) Final report The process is coordinated by an extern supervisor	1) state of affairs 2) introduction quality management 3) comparison with other cities (benchmarking), each city visit each other cities 4) consolidation and action plan (=key output) 5) evaluation visits are key-part	Assessment of the local conditions for cyclists on the basis of 10 dimensions. Then compare the results with other cities 1. existing and developed standards 2. average scores of all assessed towns and towns of roughly the same size 3. best scoring towns - Quick scan to assess city - Questionnaire municipality - Questionnaire cyclists - Field test (meetfiets)	Describe bicycle policy (with the evaluation guide) and reinforce communal policy in favour of cycling With the filling in of the guide the participants are been motivated to develop a future vision on bicycle policy. Based on strategies, determination of needed people, provided incentives (by showing best practices). Give ideas, don't judge	On the basis of some qualitative criteria, a visit by the selection commission (or two visits) certain cities are selected as bike-friendly cities. 1) Application city 2) Check by ministry 3) Preparations by 2 experts 4) Recommendation 5) 18 specialists visit city 6) Another recommendation 7) Ministry decides, if yes: sign and document Membership for 7 yr. then new application necessary
Duration / time involved	3-4 months: Politicians: 3,5 days, employees: 7 days, user groups: 3,5 days, process supervisor: 15 days.	9-12 months: 25-40 days participant (1 or 2 persons), 3 day / week facilitator	4-6 months: 1 day civil servant, 15 days Bicycle Union	1 or 2 days	See above: (2) 1 day (3) 1 or 2 days (5) 1 day

	BYPAD (Europe)	CTC Benchmarking local cycling policy (UK)	The Cycle Balance (Netherlands)	Benchmarking cycling in towns & villages (Switzerland)	Bike-Friendly cities and towns (Germany)
What aspects	(0) background information (1) user needs (2) policy steering / leadership (3) strategy & procedure (4) management means (5) management personnel (6) projects & actions (7) evaluation & monitoring	All: from promotion to engineering design, from training to maintenance of cycle paths (policy and practice)	Physical aspects	- Potent ion - Construction - Practice and use - Means	See bike traffic as a system → broad view
Emphasis / focus	Policy	Networking, comparison (best practices)	Result, publicity and influencing public opinion	Creating a bicycle culture	Best practices
Outcome	- Report - Quality plan	- 500 specific examples of good practice, nearly half best practices - action plans - network	- Standardized report (65-70p. Very detailed) - Comparison of city result - Recommendations for improvement - Official presentation of report to city (with media)	Definition of 7 levers for promotion of bicycling Greater awareness of importance cycling	- Increased bike use - Higher safety bikers - Learning from each other - Exchanging experience - Promotion bike
Strengths	- Given answers give inspiration - Comprehensive approach - Profound analysis of how results are obtained - Involvement all actors - External (objective) process supervisor	- In-depth analyses of processes behind best practices - Opportunity to review and update performance indicators and targets - Raised profile of cycling - Increased confidence - Networking	- Bicycle user as perspective - Objective measurement	- Raise awareness of importance bicycle - Give inspiration - Very quick method, not at all time-consuming	- Create a better climate for bikers - 10th anniversary: new guidelines - 7 yearly review, keep the cities alert

	BYPAD (Europe)	CTC Benchmarking local cycling policy (UK)	The Cycle Balance (Netherlands)	Benchmarking cycling in towns & villages (Switzerland)	Bike-Friendly cities and towns (Germany)
Weaknesses	- Formulation different levels of developments not clear enough - Two questions in one - Questions too long/complex - Answers not always relevant - Information financial means - Collecting quantitative data - Very time-consuming	- Availability of data bottleneck - Limitations of making meaningful comparisons (uniqueness local auth.) - Qualitative data can't be measured directly - Not comprehensive - Very time-consuming	- Technical character, black box for cities - General character, no identification of bottlenecks - Usability relies on local branches Cyclist Union - Initiative outside decision-makers - Very time-consuming	- Not systematically	- Selecting method isn't scientifically sound and not easily comprehensible
Future / ambitions	BYPAD-organisation who offers training and auditing on cycling policy.	Exploring avenues to undertake benchmarking at regional level	Not mentioned	Not mentioned (maybe support at national level)	Develop bike traffic plan based on concept of bike traffic as a system and an integrative approach in traffic planning. Also attention for information and communication. Realize measurable traffic and urban planning guidelines (for monitoring) What is the definition of a bicycle friendly city? Local made-to-measurement

9. RADFAHREN IM EUROPÄISCHEN VERGLEICH: UNTERSCHIEDE IN DER RADNUTZUNG UND IN DER POLITIK

9.1 Nutzung des Fahrrades in der EU / Beeinflussende Faktoren

Als Grundlage für das EU-Projekt BYPAD Plattform führte das Verkehrsforschungsinstitut der Universität Hasselt (Belgien) eine Literaturrecherche bestehender Daten sowie über bestehendes Wissen bezüglich Radnutzung (Daten zum Modal Split) und Verkehrssicherheit durch. Ebenfalls wurden Fakten der Radnutzung beeinflussenden Faktoren untersucht.
Die Literaturrecherche zeigte klar auf, dass Daten bezüglich Radnutzung (Radverkehrsanteil) auf lokaler Basis nur sehr spärlich vorhanden sind. Es existieren wohl Daten auf nationalem Level, diese kann man jedoch nur schwer miteinander vergleichen. Durch unterschiedliche Erhebungsmethoden sowie ungleiche Erhebungsjahre kann maximal eine Idee der Radnutzung europaweit gegeben werden, um fundierte Aussagen treffen zu können müssen aber zukünftig vergleichbare Daten erhoben werden.
Im Rahmen von BYPAD konnten Modal Split Daten einzelner Städte zusammengetragen werden, doch auch hier ist die Vergleichbarkeit nur eingeschränkt gegeben, da sich die Erhebungsmethoden und die Zeitpunkte der Erhebung stark differenzieren.

Um einen Überblick des bestehenden Materials zu geben, findet sich das gesamte Ergebnis der Literaturrecherche im Anhang dieses Berichtes.

In den folgenden Kapiteln werden die Daten sowie die Einblicke in die unterschiedlichen Radverkehrspolitiken dargestellt, die im Rahmen der BYPAD Audits in mehr als 100 Gemeinden, Städten und Region aus 21 europäischen Ländern gesammelt werden konnten.

9.2 Radverkehrspolitik in Europa: Gleichgewicht der Infrastruktur- und Bewerbungsmaßnahmen?

BYPAD - Bewertung und Radnutzung
Die Erfahrungen aus BYPAD in den unterschiedlichen europäischen Ländern und Städten zeigen, dass Radverkehrspolitik und Radnutzung auf sehr unterschiedlichen Niveaus stehen, obwohl doch zu Beginn des 20. Jahrhunderts in allen Ländern die Radnutzung auf einem ähnlichen Niveau startete. In allen BYPAD - Städten ist der Wille, eine modale Verlagerung vom Auto hin zum Fahrrad zu erreichen, klar erkennbar, die Ansätze wie dies erreicht werden soll, weichen jedoch stark voneinander ab.
In diesem Kapitel wird die Bewertung von 55 BYPAD - Städten herangezogen, für die auch Modal Split Daten vorliegen. Es werden Antworten für die folgenden Fragen gesucht:

- Geht eine hohe BYPAD - Bewertung mit einem hohen Radverkehrsanteil einher?
- Gibt es unterschiede zwischen den Ländern die Maßnahmen implementieren, die eine hohe Bewertung bekommen (z.B. Gibt es in nordeuropäischen Staaten einen stärkeren Schwerpunkt auf Infrastrukturmaßnahmen als in südeuropäischen)?

- Gibt es einen Zusammenhang zwischen Art der Radverkehrsmaßnahmen und der BYPAD - Bewertung (Steht die Zusammensetzung der Radverkehrsmaßnahmen in einem direkten Zusammenhang mit dem Grad der Entwicklung der Radverkehrspolitik)?

Basierend auf den Analysen der BYPAD - Bewertungen aus 55 Städten konnte ein positiver Zusammenhang von Radverkehrsanteil und BYPAD - Bewertung festgestellt werden, jedoch ist diese nicht sehr stark ausgeprägt (+ 0,25) (siehe Abbildung 9).

Es wurden für diese Analyse nur jene 55 Städte herangezogen, in denen einmal ein BYPAD - Audit durchgeführt wurde. In allen diesen Städten wurde der gleiche Fragebogen herangezogen, was eine erste vergleichbare Basis bildet.
Die Liste der Städte ist in Tabelle 2 zusammengestellt.

Gemeinde/Stadt/Region	Radverkehrsanteil	Gemeinde/Stadt/Region	Radverkehrsanteil
Delft	43%	Bornem	12%
Münster	40%	Drammen	12%
Nakskof	35%	Oostende	12%
Provinz Frysland	30%	Feldkirch	11%
Lüneburg	28%	Ceske Budejovice	10%
Waalwijk	27%	Helsinki	10%
Karlsruhe	26%	Olomouc	10%
Odense	26%	Sint Truiden	10%
Eindhoven	25%	Modena	9%
Marl	24%	Pardubice	8%
Bünde	19%	Jyväskylä	7%
Lund	19%	Zürich	7%
Salzburg	19%	Gävle	6%
Oss	18%	Florenz	5,40%
Växjö	18%	Linz	5%
Bozen	17,50%	Ostrava	5%
Kiel	17%	Tampere	5%
Rostock	17%	Vsetin	5%
Köln	16%	Genf	3,80%
Hyvinkää	15,90%	Southwark	3,70%

Gemeinde/Stadt/Region	Radverkehrsanteil	Gemeinde/Stadt/Region	Radverkehrsanteil
Ettlingen	15%	Region Süd Dublin	3,60%
Hilleröd	15%	Liverpool	2%
Kortrijk	15%	Plzen	2%
Viborg	15%	Lausanne	1,40%
Bregenz	14%	Brüssel	1,10%
Graz	14%	Region Brüssel	1%
Gent	12,70%	Esch-sur-Alzette	0,50%
Turku	12,40%		

Tabelle 2: Vergleichbare BYPAD - Städte, Quelle: BYPAD - Audit Berichte

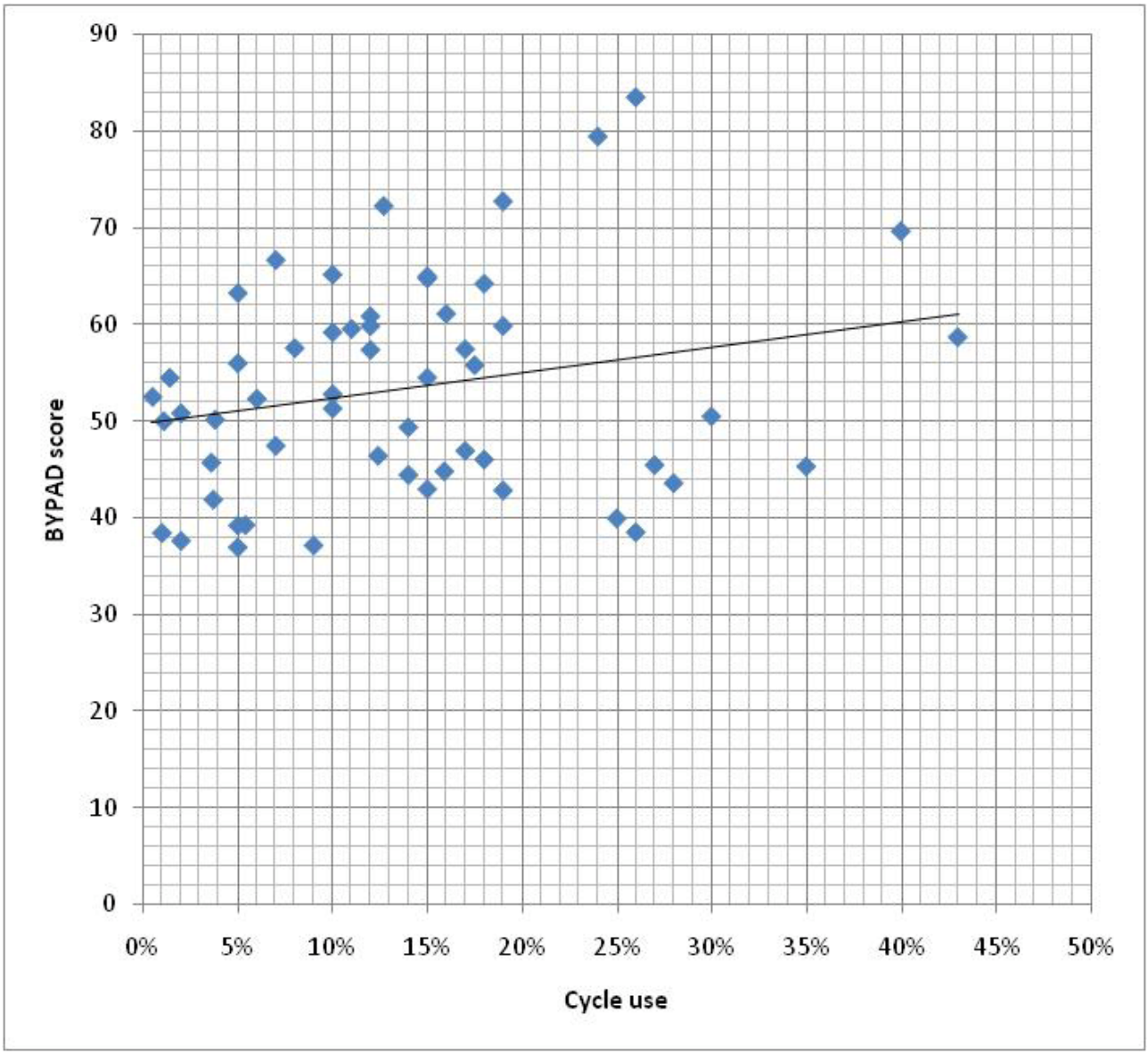

Abbildung 9: Korrelation zwischen BYPAD - Bewertung und Radverkehrsanteil

Der wichtigste zu berücksichtigende Aspekt dieser eher schwachen Beziehung ist der Einfluss der **persönlichen Meinung und Einschätzung im Rahmen der Selbstevaluierung der Evaluierungsgruppe gemeinsam mit dem Auditor**. In jeder Stadt wird das BYPAD - Audit im immer gleich strukturierten Ablauf durchgeführt, die Auffassung aber, was zum Beispiel hochqualitative Radverkehrsinfrastruktur bedeutet, unterscheidet sich tatsächlich stark von Land zu Land. So war zum Beispiel die BYPAD - Bewertung der niederländischen Stadt Eindhoven viel niedriger als der Stadt Olomouc in der Tschechischen Republik. Obwohl die Stadt Olomouc eine Menge für die Radverkehrsförderung tut, weiß man, dass diese Stadt noch immer weit hinter den Maßstäben einer durchschnittlichen niederländischen Stadt liegt.

Diese unterschiedlichen Auffassungen bezüglich was hochqualitativ und was weniger qualitativ ist sind soweit wie möglich durch den BYPAD Fragebogen bereinigt, der mögliche Maßnahmen pro Qualitätslevel vorgibt. Jedoch zeigt dieses Zusammenhangsbeispiel, dass es einfach nicht möglich ist, Städte aus

verschiedenen Ländern zu vergleichen. Jedoch ist ein Vergleich von Städten innerhalb eines Landes durchaus machbar und interessant.

Wie schon erwähnt ist BYPAD auch eine Momentaufnahme, welche Aktivitäten im Bereich Radverkehrspolitik gesetzt werden. **Ergebnisse und Auswirkungen auf den Radverkehrsanteil und Radverkehrssicherheit weisen immer eine Zeitverzögerung von mehreren Jahren auf.** Wird viel Vorbereitungsarbeit getroffen (z.B. Ernennung eines Radverkehrsbeauftragten, Zusicherung höherer Budgets für Radverkehrsmaßnahmen, Entwurf eines Radnetzes, ...), schlägt sich dies unmittelbar in einer höheren BYPAD - Bewertung nieder, die ein paar Jahre später einen höheren Radverkehrsanteil nach sich zieht. Hier ist also **immer eine Zeitverzögerung zwischen BYPAD - Bewertung und Anstieg des Radverkehrsanteils zu berücksichtigen!**

Auch die anderen BYPAD Module zeigen fast durchwegs einen positiven Zusammenhang der Modul-Bewertung und des Radverkehrsanteils auf, auch wenn dieser nicht sehr signifikant ist (siehe Abbildung 10). Eine positive Beziehung bedeutet eine hohe BYPAD - Bewertung bei gleichzeitig hohem Radverkehrsanteil. Den stärksten positiven Zusammenhang findet sich im Modul „Infrastruktur“. Dies ist sicher Ein Hinweis, dass eine hochqualitative Radinfrastruktur die stärkste Wirkung auf die Radnutzung hat. Die einzige negative Beziehung zeigt das Modul der „Ergänzenden Maßnahmen“ auf, bei dem es um Maßnahmen geht, die den Autoverkehr eindämmen (z.B. Parkbewirtschaftung) beziehungsweise die Raumplanung auf ihre Radfreundlichkeit beleuchtet. In diesem Modul haben alle BYPAD - Regionen und Städte durchwegs niedrige Werte, was auch den negativen Zusammenhang erklärt.

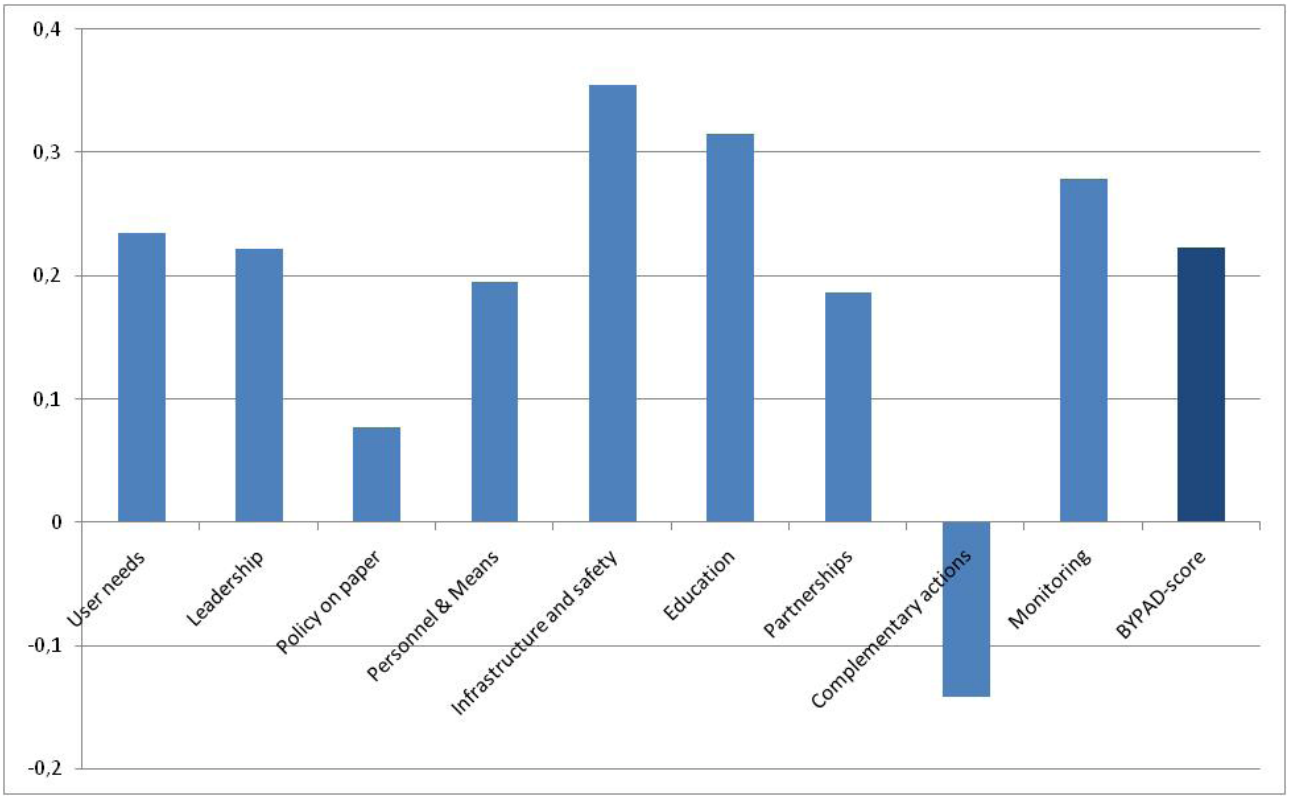

Abbildung 10: Korrelation des Radanteils und der einzelnen BYPAD - Module

9.3 Radverkehrsanteil als Indikator für die Zusammensetzung der Radverkehrsmaßnahmen

Auch wenn kein direkter (zeitlicher) Zusammenhang zwischen radverkehrsfördernden Maßnahmen und Aktivitäten in der Radverkehrspolitik sowie ihren Auswirkungen auf die Radnutzung und die Verkehrssicherheit besteht, ist dennoch klar erkennbar, dass sich *die Zusammensetzung der Radverkehrsmaßnahmen bei einer Stadt mit hohem Radverkehrsanteil von einer mit niedriger Radnutzung unterscheidet*. So wird zum Beispiel eine Stadt mit sehr niedrigem Radverkehrsanteil zuerst in Infrastruktur und Sicherheit investieren, bevor Radverkehr beworben werden kann. Zudem könnte man auch kaum mit gutem Gewissen Radverkehr via Kampagnen oder in Schulprojekten bewerben, wenn das Radfahren in einer Stadt gefährlich oder einfach auch sehr unbequem wäre. *Somit hängt vom (Radverkehrs-)Entwicklungsstand der jeweiligen Stadt oder Region ab, wie das optimale Paket an Maßnahmen aussieht.*
Dies ist auch der Hauptgrund, warum der Austausch von Erfahrungen innerhalb des BYPAD - Netzwerkes vorwiegend zwischen Städten und Regionen mit ähnlichem Qualitätslevel in der Radverkehrspolitik organisiert wird. Ein Interessanter Hinweis ist hierzu die Datenbank der besten angewandten Beispiele auf www.bypad.org

Wichtig: Ein Grundsatz von BYPAD ist, dass die Zusammensetzung der radverkehrsfördernden Maßnahmen immer eine Mischung aus Infrastrukturmaßnahmen und weichen Maßnahmen (Information, Bewerbung,....) sein soll!

Es werden drei Kategorien von solchen Verbesserungspaketen definiert:

1. **Beginnende Radstädte, Radverkehrsanteil < 10%**
   Ziel: Mach Radfahren möglich / sicher / bequem

   Eine Grundausstattung an Radverkehrseinrichtungen (Radstreifen, Fahrradparkmöglichkeiten, verkehrsberuhigte Zonen,...) sollte realisiert werden, bevor Stadt oder Region mit Maßnahmen zur Radverkehrserhöhung via Kampagnen und Informationen beginnt,...
   Die Stadt sollte alle Maßnahmen dir zur Förderung des Radverkehrs getroffen werden der Öffentlichkeit mitteilen, sowie welche Vorteile das Radfahren hat.

2. **Aufsteigende Radstädte, Radverkehrsanteil 10-20%**
   Ziel: Mehr Leute überzeugen das Fahrrad zu nutzen

   In dieser Stufe gibt es noch immer ein hohes Umsteigepotential vom Auto zum Fahrrad. Die Stadt sollte regelmäßig und klar die Vorteile des Radfahrens kommunizieren; alle Kanäle und Arten der Bewerbung sollten genutzt werden (Schulen, Unternehmen,...)
   Eine kontinuierliche Verbesserung der Radverkehrsbedingungen (Bequemlichkeit, Sicherheit) ist notwendig.

3. **Sieger Radstädte, Radverkehrsanteil > 20%**
   Ziel: die Leute sollen weiterhin das Rad nutzen

   In dieser Kategorie werden die meisten Kurzstrecken mit dem Rad zurückgelegt (oder mit dem Öffentlichen Verkehr). Es ist nicht mehr notwendig noch mehr Leute von den Vorteilen des Radfahrens zu überzeugen, jedoch liegt die Herausforderung darin, die Leute weiterhin auf dem Fahrrad zu behalten.
   Da sich die Nutzeranforderungen immer wieder verändern, sollte auf die Verbesserung des Komforts wie auch der Sicherheit besonderes Augenmerk gelegt werden.

Der oben beschriebene Zusammenhang zwischen Radverkehrsanteil und der Zusammensetzung der einzelnen Radverkehrsmaßnahmen ist eine Hypothese die mehr oder weniger im Rahmen von BYPAD belegt werden konnte, nicht jedoch wissenschaftliche nachgewiesen ist.

Das Ergebnis des BYPAD - Aktionsplanes ist immer eine Mischung von Maßnahmen im Bereich der Infrastruktur und im Bereich der Bewerbung. Ob ein stärkerer oder schwächerer Schwerpunkt auf Infrastrukturmaßnahmen gesetzt wird, hängt vom Qualitätslevel der jeweiligen Radverkehrspolitik sowie des Radverkehrsanteils ab.

Abbildung 11 zeigt schematisch diese Ausgewogenheit zwischen Infrastruktur und Bewerbungsmaßnahmen.

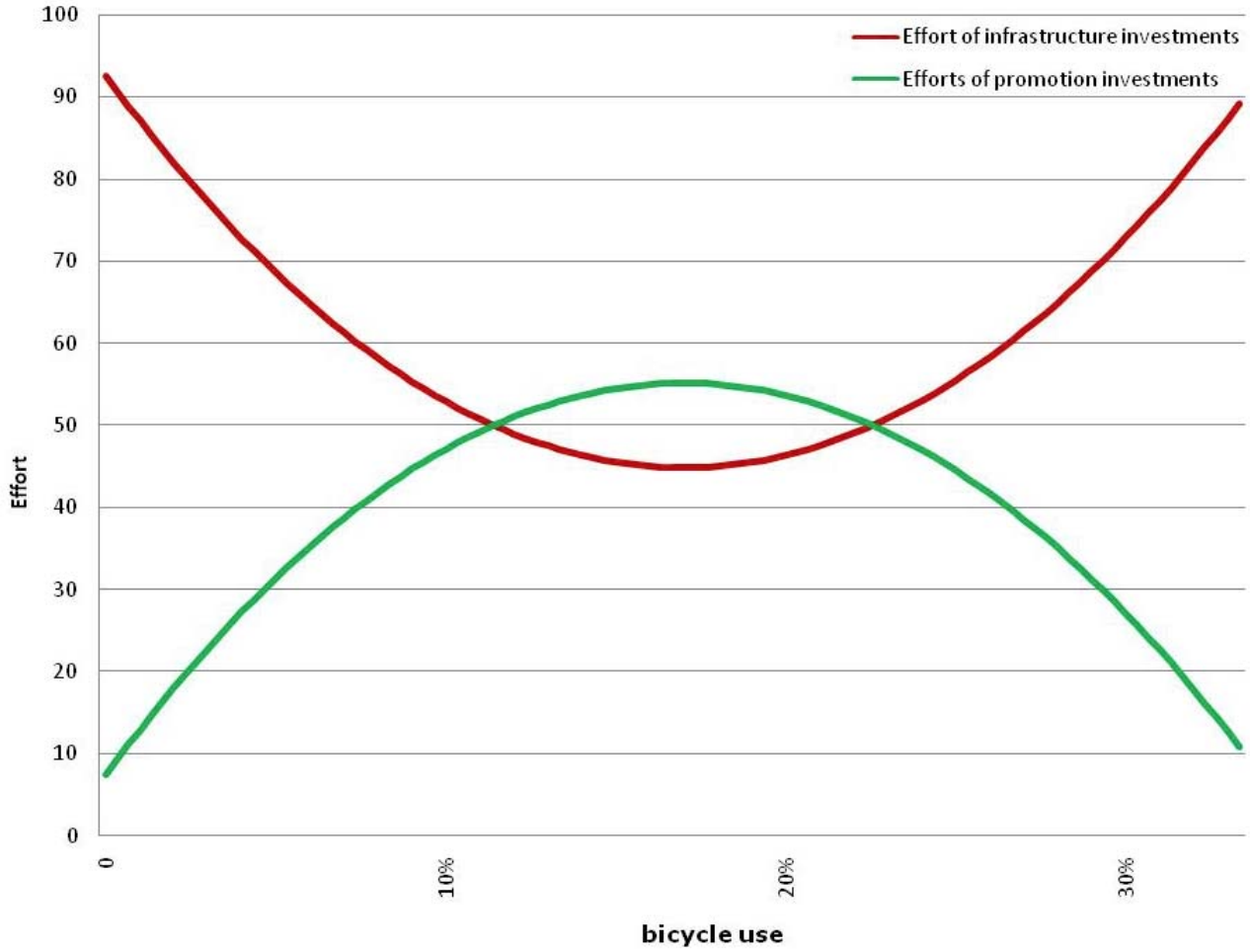

Abbildung 11: Ausgewogenheit von Infrastrukturmaßnahmen und Bewerbungsmaßnahmen

9.4 Gewinner Städte

Wenn man sich die Ergebnisse der BYPAD - Städte genauer ansieht erkennt man, dass die oben aufgestellte Hypothese nicht eindeutig bewiesen werden kann, jedoch ist klar ersichtlich, dass die Städte mit dem höchsten Radverkehrsanteil (> 20%) immer noch stark in Infrastruktur investieren.

Ein Beispiel:
Die Stadt Odense in Dänemark hat einen Radverkehrsanteil von 26%. Trotz dieses hohen Anteils investiert die Stadt in den Radverkehrskomfort mit Grünen Wellen für Radfahrer auf den Hauptradrouten, hochqualitativen Belägen auf Radstreifen im Stadtzentrum, schön gestaltete und überdachte Radabstellanlagen,... .
Die Bewerbung des Radverkehrs passiert nicht vordergründig über die Aufklärung der Vorteile des Radfahrens, sondern als permanenter Teil im Marketing der Stadt. Die Stadt berichtet auf allen möglichen Kanälen über Fahrräder und Radfahren und alle Aktionen und Veranstaltungen der Stadt sind gleichzeitig mit der Bewerbung des Rades verbunden.

Ein perfektes Beispiel einer „nutzlosen“ Maßnahme zur Erhöhung der Sicherheit und des Komforts ist das Radbarometer, das eine gut sichtbare Radverkehrszählstelle an einem zentralen Punkt in der Stadt ist. Diese Infrastrukturmaßnahme ist zu 100% eine Bewerbungsaktion.

Grüne Welle für Radfahrer

Radbarometer - Odense

9.5 Aufsteiger Städte:

Städte deren Radverkehrsanteil auf mittlerem Niveau liegt (10-20%) setzen ihre Schwerpunkte sowohl auf eine Verbesserung des Radnetzes als auch auf Bewerbungskampagnen die auf verschiedene Nutzergruppen abgestimmt sind.
In diesen Städten befindet sich die interne administrative Organisation der Stadt noch im Wandel hin zur kompletten Integration von Radverkehrsthemen in alle Planungsbereiche. Ein speziell eingesetzter Radverkehrsbeauftragter innerhalb der Verkehrsabteilung wird bald nicht notwendig sein, da die gesamte Abteilung sowie auch andere Abteilungen Radverkehrsthemen und -maßnahmen selbstverständlich in die tägliche Arbeit einbauen.

Ein Beispiel:
Die Stadt Gent in Belgien, mit einen Radverkehrsanteil von 13%, investiert nach wie vor in die Umsetzung eines flächendeckenden Radverkehrsnetzes. Die vier Hauptrouten sind zwar schon fertig gestellt, jedoch fehlt noch eine Radinfrastruktur entlang vieler Hauptstraßen. Gemeinsam mit der regionalen Gebietskörperschaft wurde ein Intensivprogramm zum Bau und zur Verbesserung von Radwegen gestartet.
Da noch immer ein hohes Potential für die Umlegung vom Auto- auf den Radverkehr, vor allem auf kurzen Wegen, vorhanden ist, forciert die Stadt Aktionen wie „Mit dem Rad zur Schule“ und Anreize für die Arbeitgeber und Arbeiter um mit dem Rad zur Arbeit zu fahren. Die permanente Präsenz von Radverkehrsthemen in der Presse ist auch ein Mittel um das Rad in den Köpfen der Bürger zu behalten.

Kampagne „Gent , wild aufs Radfahren“


Bewachte Radabstellanlage am Bahnhof


Radabstellanlage der Angestellten der Stadt Gent + 0,15€/km für „mit dem Rad zur Arbeit“


Gemeinsam Radfahren zur Volksschule

9.6 Beginner Städte

Für Städte deren Radverkehrsanteil auf dem niedrigstem Level liegt (< 10%) wäre natürlich die Investition in Kampagnen zur Bewerbung des Radverkehrs (z.B. mit dem Rad zur Schule/Arbeit) die kostengünstigste Variante, allerdings ist es keine vernünftige Variante, wenn man bedenkt, dass die Infrastruktur noch nicht ausgebaut ist, und es eventuell sogar gefährlich oder zumindest sehr unbequem ist, mit dem Rad zu fahren.

Wenn sich die Radverkehrspolitik und der Radanteil auf niedrigstem Niveau befinden ist die Aufgabe der Stadt zuerst eine sichere und komfortable Radverkehrsumgebung zu gestalten und erst dann aktiv die Vorteile des Radfahrens zu kommunizieren. Auf diesem Level liegt es an den Nutzern und an den Nutzerinitiativen über die positiven Auswirkungen des Radfahrens auf die Gesundheit, auf die Umwelt, auf die Verkehrsbedingungen (Stau),.... aufzuklären.

Die Nutzergruppen müssen die Politiker erst davon überzeugen, Maßnahmen und Aktivitäten im Radverkehrsbereich zu treffen.

Die Entscheidung, dass in einer Stadt mit niedrigem Radverkehrsanteil in eine sichere Radinfrastruktur oder in verkehrsberuhigte Zonen investiert wird, ist sicher eine schwere jedoch die einzig richtige und unbedingt notwendige im Prozess der Verbesserung der Radverkehrspolitik. In zu vielen Städten wird auf die „einfachen" Maßnahmen wie Bewerbung des Radverkehrs sowie Pressemitteilungen gesetzt, langfristig erzeugen diese Maßnahmen alleine aber keine bessere Radverkehrspolitik.

Ein Beispiel:
Die Region Brüssel in Belgien, mit einem Radverkehrsanteil von 2-3%, war schon länger in der Bewerbung des Radfahrens aktiv, hat jedoch erst in den letzten Jahren die Wichtigkeit einer sicheren und komfortablen Radinfrastruktur sowie verkehrsberuhigten Zonen erkannt. Auch wenn Brüssel immer noch eine sehr Auto-orientierte Stadt ist werden in den nächsten Jahren mehr und mehr hochqualitative Radverkehrseinrichtungen wie Radabstellanlagen gebaut. Brüssel war außerdem eine der Pionierstädte in Europa, die das Fahren von Fahrrädern gegen die Einbahn erlaubt haben.

Auf administrativer Ebene wurde ein Radverkehrsbeauftragter installiert, derzeit sind mindestens 6 Personen aktiv für die Planung und Umsetzung der Radverkehrspolitik zuständig. Auch die Kooperation mit Nutzergruppen ist mittels einer monatlichen Radverkehrskommission, bei der alle anstehenden Radverkehrsprojekte mit Nutzervertretern diskutiert werden, gut organisiert.

Maßnahmen im Bereich Kommunikation und Bewerbung werden auf „Mit dem Rad zur Schule", eine Radkarte und einige große jährliche Veranstaltungen (Dring-Dring: eine ganze Woche wird der Radnutzung in Brüssel gewidmet; Bicycity: eine am autofreien Sonntag (im Mai) groß organisierte gemeinsame Radfahrt auf den Autobahnen in die Stadt Brüssel, mit mehr als 10.000 Teilnehmern) konzentriert.

Um der Welt zu zeigen, dass Brüssel das Fahrrad als Verkehrsmittel ernst nimmt, veranstaltete die Region Brüssel die Velo-City Konferenz in 2009. Diese Konferenz stellt einerseits einen Meilenstein für Brüssel dar, um zeigen zu können was schon umgesetzt wurde, und andererseits wird auch Europa bei dieser Velo-City in Brüssel in den Mittelpunkt gerückt.

Das BYPAD - Audit wurde in der Region Brüssel zweimal durchgeführt. Die Weiterentwicklung die die Region Brüssel in dieser Zeit im Bereich Radverkehr gemacht hat ist deutlich in der Abbildung 12 zu sehen.

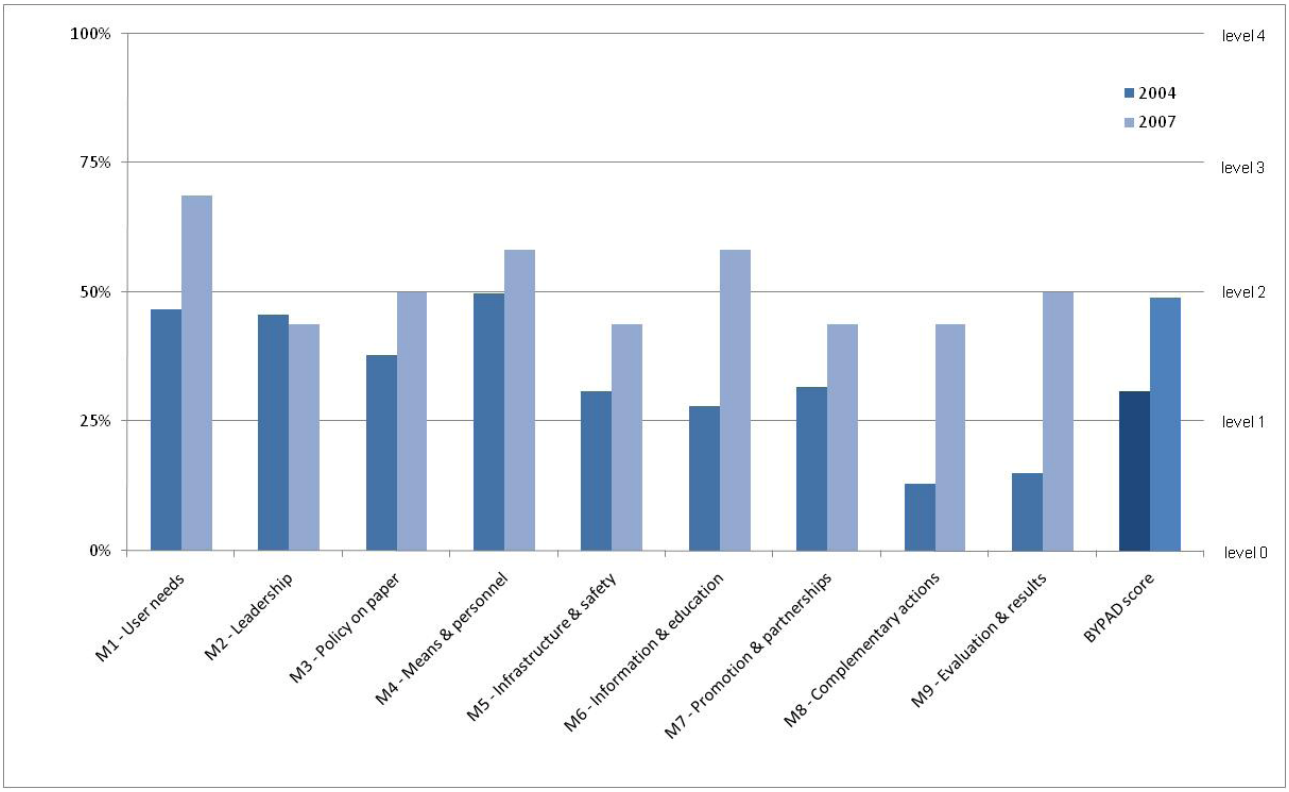

Abbildung 12: BYPAD - Bewertung in der Region Brüssel 2004 und 2007

Bicycity Brüssel

Radverkehrstraining in Brüssel

9.7 Unterschiede zwischen den Ländern?

Ist es möglich, die Unterschiede in der Radverkehrspolitik in den einzelnen europäischen Ländern auf Basis der BYPAD - Ergebnisse zu beschreiben? Und können Länder von den gegenseitigen Ansätzen lernen?
Diese Fragen sollen mit Hilfe der Ergebnisse der BYPAD - Städte beantwortet werden.

An dieser Stelle ist wichtig klarzustellen, dass ein derartiger Vergleich vorsichtig betrachtet werden muss, da pro Land ein Durchschnittswert berechnet wird, der auf den Ergebnissen der BYPAD - Städte des jeweiligen Landes beruht.

Da nicht alle Städte in den jeweiligen Ländern ein Audit durchgeführt haben, und da in manchen Ländern mehr und in anderen weniger Städte ein BYPAD - Audit durchgeführt haben, kann dieser Vergleich nicht als Status Quo der Unterschiede der einzelnen Länder angesehen werden.

Es werden die Diagramme für die Module „Infrastruktur & Sicherheit“ und „Information & Erziehung“ dargestellt. Da diese Diagramme die Ergebnisse unterschiedlicher BYPAD Städte zeigen, und diese wiederum auf dem qualitativem Evaluierungsprozess unterschiedlicher Auditoren basieren, dürfen keine direkten Vergleiche der einzelnen Länder angestellt werden. Jeder würde zum Beispiel die Niederlande im Modul „Infrastruktur & Sicherheit“ auf höchstem Niveau einschätzen, wie jedoch schon weiter vorne erklärt wurde, waren die Niederländer viel selbstkritischer als zum Beispiel die Evaluierungsgruppe in der Tschechischen Republik.

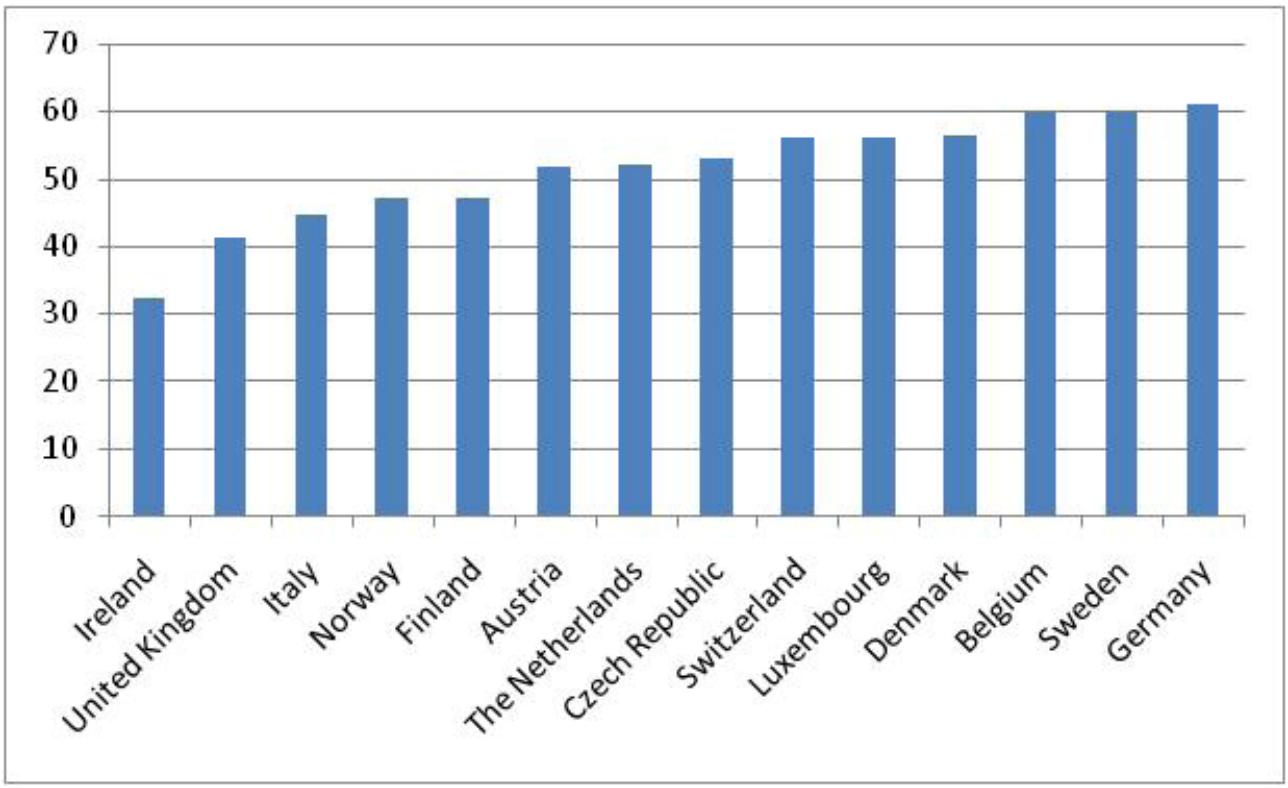

Abbildung 13: BYPAD-Ergebnisse pro Land für das Modul „Infrastruktur & Sicherheit“. Quell: BYPAD Ergebnisse von 55 Städten.

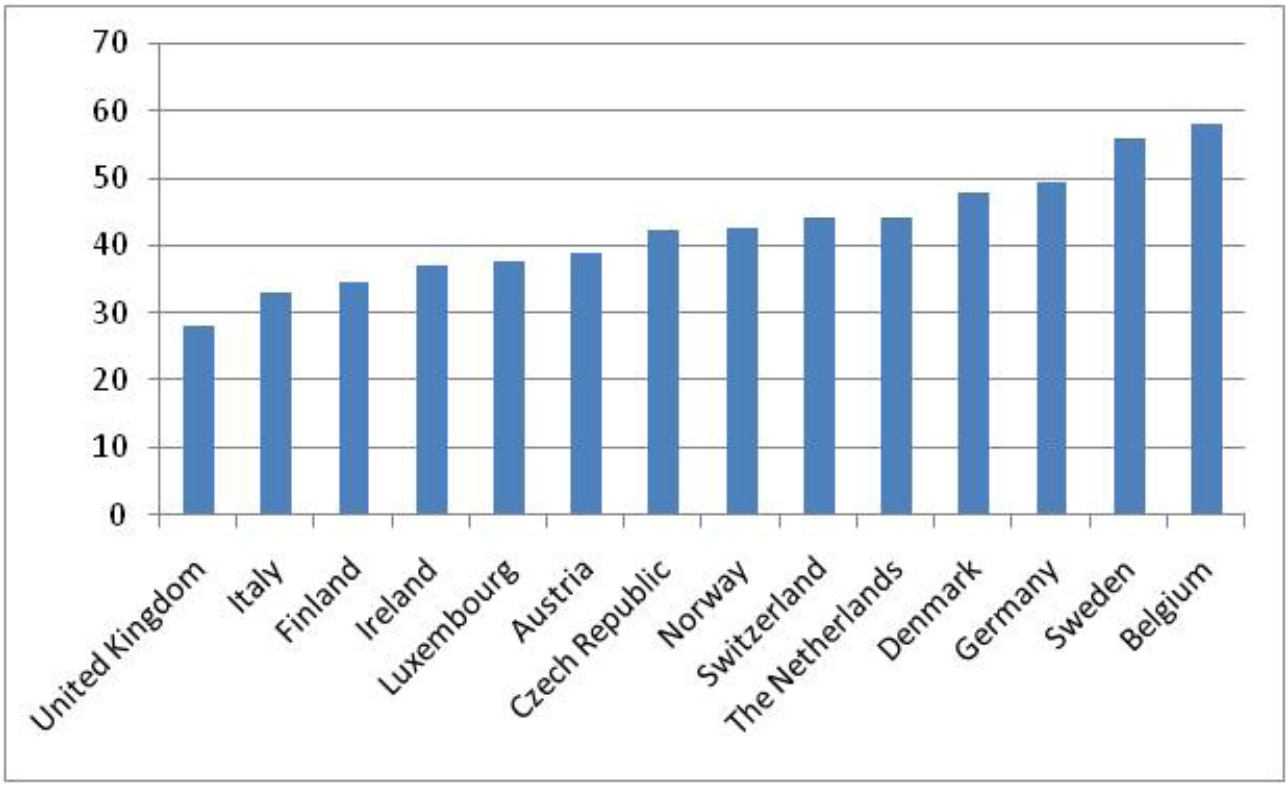

Abbildung 14: BYPAD Ergebnisse pro Land für das Modul „Information & Erziehung“
Quelle: BYPAD Ergebnisse aus 55 Städten.

9.8 Werkzeug zur Selbstevaluierung und Voneinander Lernen

Da BYPAD als Werkzeug im Bereich des Totalen Qualitätsmanagements entwickelt wurde, ist das oberste Ziel von BYPAD ein Werkzeug zur Selbstevaluierung zu sein, das Stärken und Schwächen in der Radverkehrspolitik einer Stadt aufzeigt. Vordergründig ist die Beobachtung interessant, ob eine Stadt Fortschritte im Bereich der Radverkehrspolitik macht und was die genauen Gründe für die Fortschritte sind.

Diese Analyse wird durch die Evaluierungsgruppe durchgeführt, der Prozess wird von einem externen Radverkehrspolitikexperten, dem BYPAD - Auditor, begleitet. Genau dieser Ansatz des Qualitätsmanagement ist die große Stärke von BYPAD. Die Stadt erhält eine Einschätzung der derzeitigen Situation sowie einen Plan zur Verbesserung der Radverkehrspolitik, beides beruht auf den Meinungen und den Visionen lokaler Akteure sowie auf dem Input des BYPAD - Auditors, der Wissen und Erfahrungen von anderen (BYPAD)-Städten einbringt.

Da die Städte bei einem Audit meist ein gewisses Gefühl von Ranking mitbringen, wollen sie oft auch wissen, wie gut sie im Vergleich zu anderen Städten liegen. Wie schon erklärt wurde, ist ein Vergleich von Städten aus unterschiedlichen Ländern nicht sinnvoll.

Der einzige zulässige und korrekte Vergleich ist der der eigenen BYPAD Ergebnisse, das heißt wenn eine Stadt ihre Ergebnisse von mehreren zeitlich auseinander liegenden Audits vergleicht.

Weiters können, mit gewisser Vorsicht, die Ergebnisse von Städten in einem Land verglichen werden. Die Audits sind meist durch denselben Auditor durchgeführt und die Radkultur ist im Großen und Ganzen die gleiche. In den unten stehenden Diagrammen wird ein Vergleich von tschechischen, belgischen, niederländischen und deutschen Städten dargestellt. Für jene, die die Radverkehrssituation in diesen Ländern kennen, wird die Einstufung der Qualität als nachvollziehbar erscheinen.
Solche Vergleiche innerhalb eines Landes erhöhen auch die Motivation, die beste Radverkehrsstadt der Nation zu werden.

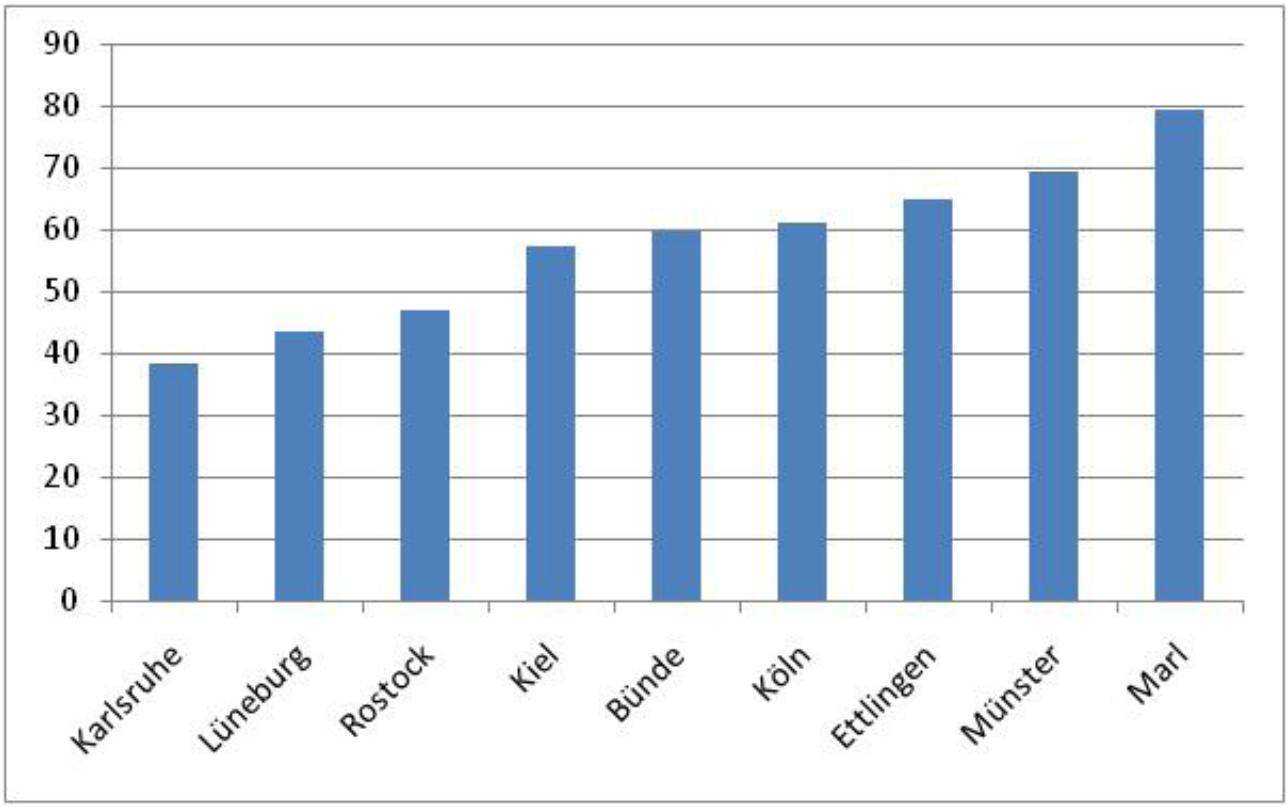

Abbildung 15: BYPAD Ergebnisse in deutschen Städten

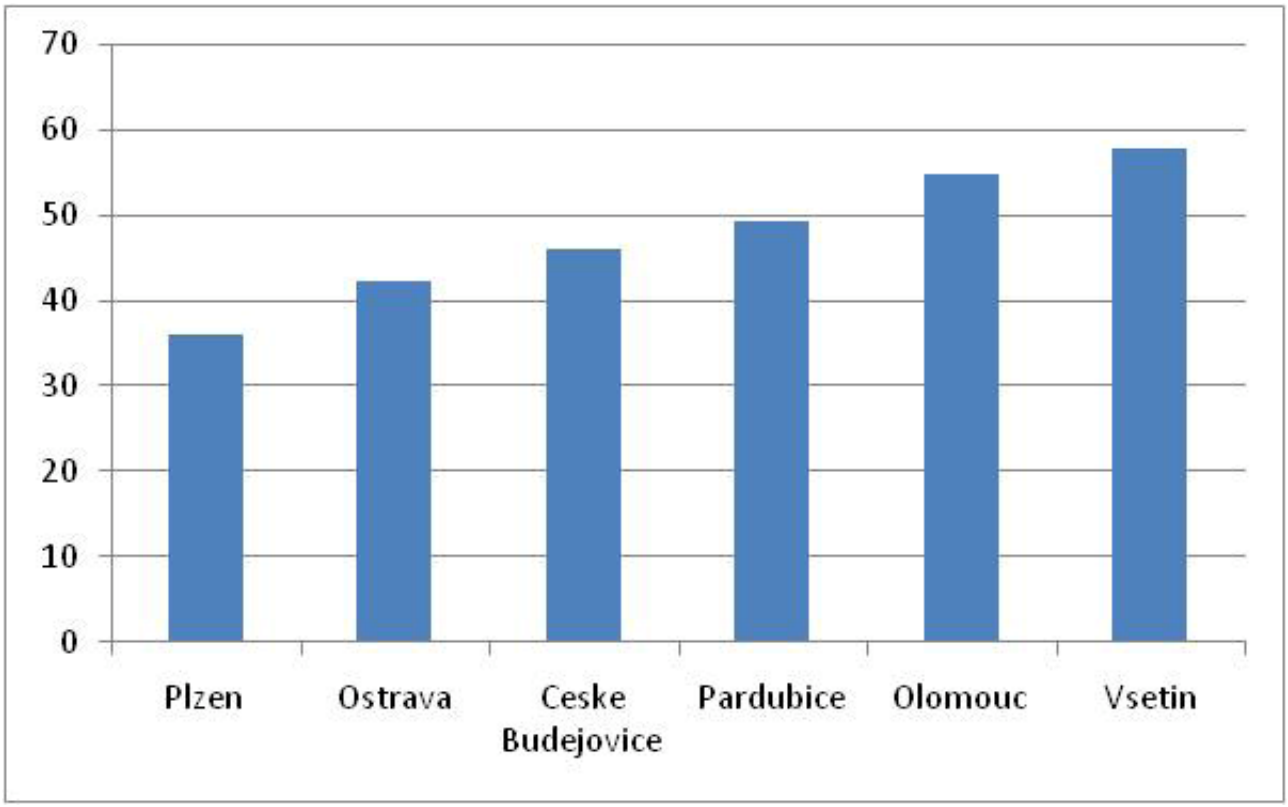

Abbildung 16: BYPAD Ergebnisse in tschechischen Städten

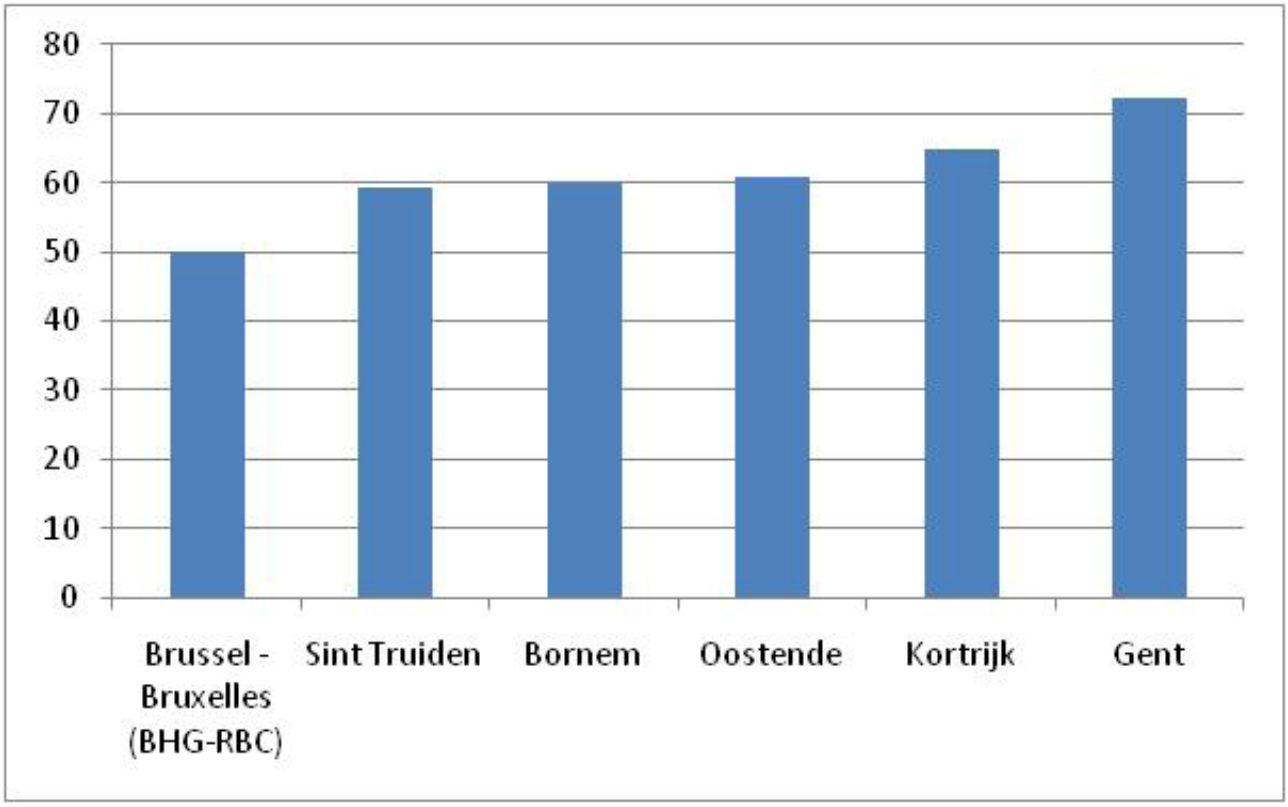

Abbildung 17: BYPAD Ergebnisse in belgischen Städten

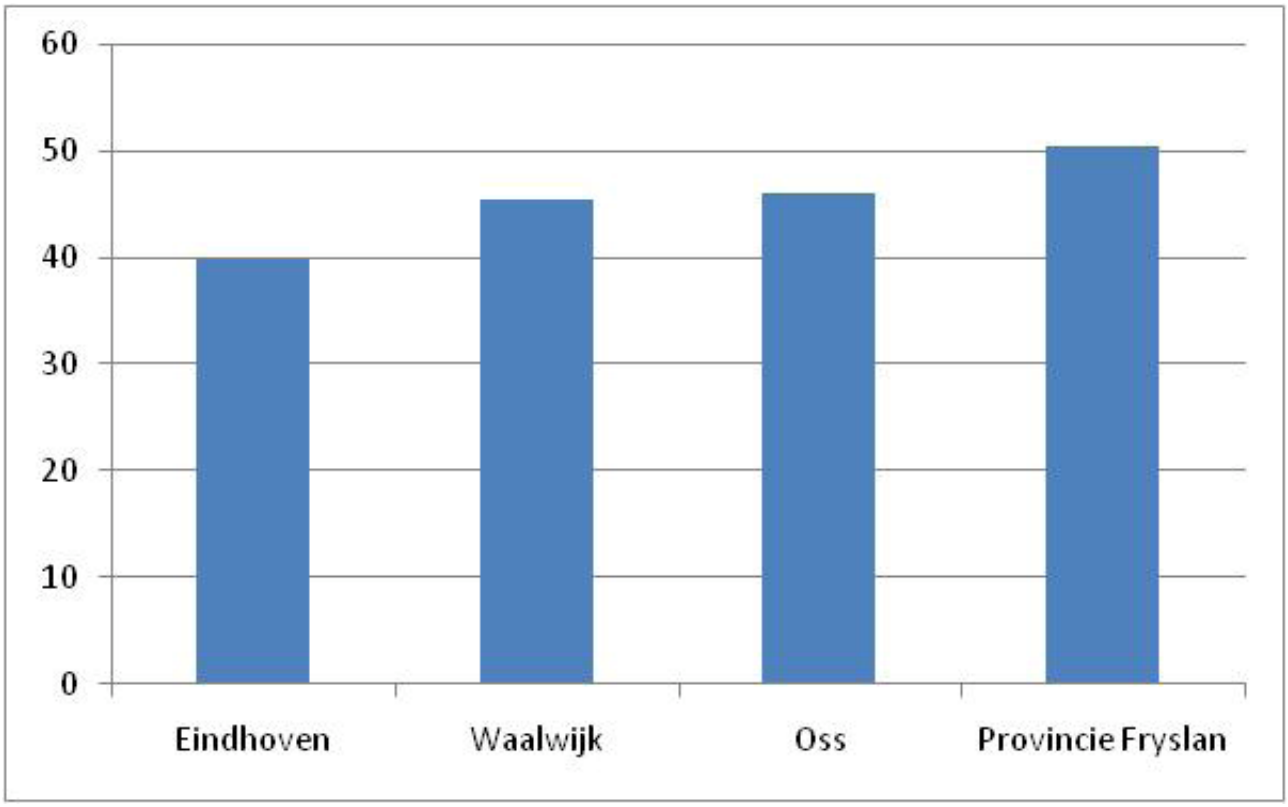

Abbildung 18: BYPAD Ergebnisse in niederländischen Städten

Ein klares Ziel des BYPAD - Netzwerkes ist natürlich von anderen Städten und Regionen zu lernen. Bei der Verbesserung der eigenen Radverkehrspolitik ist der Austausch von Erfahrungen zwischen Auditoren sowie zwischen Städten und Regionen ein wichtiger Aspekt. Die BYPAD - Ausbildungen, BYPAD - Seminar, die BYPAD - Webseite sowie der BYPAD - Newsletter stellen eine breite Basis für diesen Austausch dar.

10. BYPAD: WAS WURDE ERREICHT, UND WAS (NOCH) NICHT

Mit der Einführung des Totalen Qualität Managements in den Bereich der Radverkehrspolitik wollte BYPAD den Radverkehr als wichtigen und zentralen Part einer städtischen oder regionalen Politik positionieren. BYPAD wurde als von der Europäischen Kommission finanziertes Forschungsprojekt gestartet, um ein Werkzeug des Totalen Qualitätsmanagements für die Radverkehrspolitik zu entwickeln. Während dieser Zeit war niemandem bewusst, was dieses Qualitätsmanagement Werkzeug einmal für die europäischen Städte und Regionen bedeuten würde. Am Ende des Forschungsprojektes, im Jahr 2001, war jedoch allen Projektpartnern klar, das ein unheimlich starkes Instrument geschaffen wurde mit einem großen Potential einen **Europäischen Qualitätsstandard für Radverkehrspolitik zu definieren**.

Mit BYPAD - Plattform, dem letzten in dieser Entwicklung von der EU gefördertem Projekt, wurde ein **pan-europäisches Netzwerk von etwa 100 Gemeinden, Städten und Regionen in 21 europäischen Ländern geschaffen, die aktiv in die Verbesserung der Qualität ihrer Radverkehrspolitik investieren**.

Mittels BYPAD wurden **58 Auditoren ausgebildet und zertifiziert**, die den Audit-Prozess begleiten, sowie die Städtenetzwerke POLIS; Energie-Cité und ICLEI in die Verbreitungsaktivitäten involviert.

Somit entstanden aus BYPAD einerseits ein starkes Werkzeug zur Qualitätsverbesserung und andererseits ein Netzwerk von (Radverkehrs)Städten und Regionen sowie von Radverkehrsexperten. Die enorme Wichtigkeit einer integrierten Radverkehrspolitik in einer Stadt oder Region wurde belegt. Inzwischen ist **BYPAD ein Qualitätsstandard für Radverkehrspolitik** geworden. Verschiedene nationale und regionale Radverkehrsstrategien (z.B. Österreich, Deutschland, Tschechische Republik,...) empfehlen BYPAD als Werkzeug zur Verbesserung der lokalen Radverkehrspolitik zu verwenden.

Nach diesen fast neun Jahren der europäischen Unterstützung muss BYPAD nun auf eigenen Beinen stehen und versteht sich als Plattform, die die Qualität von Radverkehrspolitik und damit den Radverkehrsanteil und die Verkehrssicherheit durch:

1. Durchführung von BYPAD - Audits in Gemeinden, Städten und Regionen
2. Austausch von Radverkehrswissen und Expertise im BYPAD - Netzwerk (Auditoren, Gemeinden, Städte, Regionen).

erhöhen will.

10.1 Ergebnisse

Aufbau eines Experten-Netzwerkes von 58 BYPAD-Auditoren

Im Rahmen eines intensiven Ausbildungsprogramms wurde ein europaweites Netzwerk von 58 zertifizierten BYPAD Auditoren geschaffen, die sich einen guten Ruf als Experten für Radverkehrspolitik erarbeitet haben. Ein zertifizierter BYPAD - Auditor zu sein, heißt auch bereit zu sein, sich ständig weiter zu bilden. Um die Zertifizierung zu behalten muss zumindest alle zwei Jahre ein Expertentraining absolviert werden, um auf dem neuesten Stand im Bereich Radverkehrspolitik zu bleiben, sowie um Erfahrungen und Know-how in der Expertenrunde auszutauschen.

Einführung des Totalen Qualitätsmanagements in die Radverkehrspolitik

BYPAD ist ein starkes Werkzeug, das inzwischen als Marke in ganz Europa anerkannt ist. Mit Hilfe von BYPAD wurden Aspekte des Totalen Qualitätsmanagements in die Radverkehrspolitik eingeführt, womit BYPAD nun auch als effiziente und effektive Methode zur Verbesserung der lokalen und regionalen Radverkehrspolitik angesehen wird.

Da im Rahmen von BYPAD die Gemeinden, Städte und Regionen sich selber evaluieren, also eine Selbstevaluierungs-Methode angewandt wird, wurde spezielles Augenmerk auf den Vergleich der unterschiedlichen Ergebnisse und erzielten Bewertung einer Gemeinde oder Stadt gelegt. Da BYPAD grundsätzliche einen qualitativen Ansatz verfolgt (unter Berücksichtigung von einzelnen quantitativen Elementen), da die Audits von verschiedenen Auditoren durchgeführt werden, und vor allem auf Grund des Selbstevaluierungsansatzes, sollten die Ergebnisse

einzelner Gemeinden, Städte oder Regionen vor allem unterschiedlicher Länder nicht direkt miteinander verglichen werden.
Obwohl von den BYPAD - Gründern und BYPAD - Partnern immer betont wurde, dass BYAPD keinen Wettbewerb darstellen soll, scheint für einige Gemeinden, Städte oder Region gerade der Vergleichs- bzw. Rankingansatz interessant.

Europäischer Qualitätsstandard für Radverkehrspolitik
Für Gemeinden, Städte und Regionen die an der Verbesserung ihrer Radverkehrspolitik arbeiten sind bereits gesetzte Standards und erprobte effektive Maßnahmen wichtige Anhaltspunkte und Richtwerte. Im Rahmen von BYPAD wird genau dieses Wissen den Gemeinden zur Verfügung gestellt und ein maßgeschneidertes Set von Maßnahmen zur Verbesserung der Radverkehrspolitik erarbeitet. Die standardisierte BYPAD Methode bildet die Grundlage zur Einschätzung des Qualitätslevels oder Qualitätsstandards einer Gemeinde, Stadt oder Region in Bezug auf ihre Radverkehrspolitik. Diese Qualitätslevels wurden europaweit standardisiert. Mit Hilfe von BYPAD können somit die Gebietskörperschaften feststellen auf welchem Qualitätslevel oder Qualitätsstandard sich ihre Radverkehrspolitik derzeit befindet und welches Level oder welchen Standard sie erreichen möchten.

Werkzeug zur Beobachtung der Radverkehrspolitik
Da BYPAD ein Selbstevaluierungs-Instrument ist, mit dessen Hilfe ein Qualitätsplan beziehungsweise ein Arbeitspapier zur Verbesserung der Radverkehrspolitik erarbeitet wird, kann es hervorragend gleichzeitig als Werkzeug zur kontinuierlichen Beobachtung der Veränderung in der Radverkehrspolitik verwendet werden. Die Einschätzung des BYPAD Levels pro Modul zeigt klar an, auf welchem Stand sich das jeweilige Modul (der jeweilige Themenbereich der Radverkehrspolitik) befindet. Bei einer regelmäßigen Wiederholung der Leveleinschätzung alle 3-4 Jahre kann die genaue Entwicklung der Radverkehrspolitik nachvollzogen werden.

Wissens-Zentrum für (beginnende) Radverkehrsstädte/-regionen
Das gesamte BYPAD Netzwerk deckt den aktuellen Wissenstand bezüglich möglichen Maßnahmen und Strategien zur Verbesserung der Radverkehrssituation ab. Besonders die Neuen Mitgliedsstaaten und Städte die nur begrenztes Personal oder Expertise zur Verbesserung der Radverkehrssituation haben, können auf dieses umfangreiche Wissen zurückgreifen und auf die Unterstützung des BYPAD - Netzwerkes zählen.

10.2 Herausforderungen / Zukunft

Europäischer Preis für die beste und vielversprechendste Radstadt
Wie schon mehrfach erläutert wurde, ist BYPAD kein Werkzeug um Gemeinden, Städte oder Regionen aus verschiedenen Ländern miteinander zu vergleichen. Dennoch implizierte BYPAD einen Art Wettbewerb zwischen den BYPAD - Städten, da jede Stadt die beste sein möchte.

Dieses sich messende Element könnte aber auch die Basis für vermehrte Investitionen in den Radverkehr sein und somit einen Rechtfertigung für einen Europäischen Preis für die beste Radstadt sowie für die vielversprechendste Radstadt sein. Durch die Nominierung unterschiedlicher Städte könnten nicht nur jene Städte mit hohem Radverkehrsanteil ins Rampenlicht gerückt werden sondern auch die beginnenden und aufsteigenden Radstädte ausgezeichnet werden, bei denen die Radverkehrsmaßnahmen schon langsam zu wirken beginnen, und die in naher Zukunft einen Wandel des Mobilitätsverhaltens hin zum Radverkehr erleben werden.

BYPAD – Foundation

Um zu verhindern, dass BYPAD eines jener EU-Projekte wird, die mit Ende der Förderung auch als Projekt endet, soll nun große Aufmerksamkeit auf die Weiterführung der BYPAD - Aktivitäten gelegt werden. Um eine langfristige und kontinuierliche, und nicht auf Projekten basierende Weiterführung garantieren zu können, soll eine Rechtsform (BYPAD - Foundation) gegründet werden.
Die Aufgaben der BYPAD - Foundation:

- Unterstützung der Durchführung von BYPAD - Audits
- Organisation von Seminaren, Konferenzen und Exkursionen zum strukturierten Austausch von Radverkehrswissen
- Kommunikation über BYPAD via Newsletter und Webseite
- Verbesserung und Modifizieren des BYPAD Werkzeuges
- Ausbildung neuer und bestehender BYPAD - Auditoren
- Überreichung der BYPAD - Zertifikate an BYPAD Gemeinden, Städte und Regionen

Die Finanzierung dieser Stiftung wird über die Mitgliedsbeiträge der BYPAD - Auditoren sowie der BYPAD - Gemeinden, Städte und Regionen erfolgen.

Damit nicht ein zusätzliches Städtenetzwerk entsteht wird eine aktive Kooperation mit den bestehenden Städtenetzwerken (POLIS, ICLEI, Energie - Cité, Eurocities,...) notwendig sein.

Da die European Cylclists‘ Federation (Europäische Radverkehrsinitiative) eines der Gründungsmitglieder dieser Stiftung sein wird, ist auch ein direkter Link zu den Nutzern hergestellt.

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BYPAD

More quality for bicycle traffic

The most efficient method for improving your local cycling policy!

BYPAD BICYCLE POLICY AUDIT

Cycling, the European approach

Total quality management in cycling policy.
Results and lessons of the BYPAD-project.

EIE/05/016 – deliverable wp 6 - dissemination

October 2008

CONTENT

INTRODUCTION

In 1999 the European commission funded a project called BYPAD under the SAVE-programme. Aim of BYPAD was to develop a quality management tool which indicates the quality level of the cycling policy in cities and which prepares a quality plan/action plan for this cycling policy.

New in BYPAD was the introduction of Total Quality Management as a tool to improve cycling policy. Both organizational aspects as results of cycling policy in the field were examined and all relevant actors (users, officials and politicians) were actively involved in the evaluation process. The whole audit process was guided by an external auditor.

The first BYPAD-project was executed by Langzaam Verkeer (co-ordinator), fgm-AMOR, velo:consult and ECF (The European Cyclists' Federation). They developed the bicycle audit tool and tested it in 7 European cities: Gent, Birmingham, Zwolle, Grenoble, Ferrara, Troisdorf and Graz. Based on the successful implementation of the BYPAD tool in these cities a second BYPAD-goal became clear: spreading of the BYPAD-method in Europe and the exchange of cycling knowledge between cities and BYPAD-auditors.

Two successor EU-projects (BYPAD+ and BYPAD-platform) focused on both these aspects of spreading the tool, improving the tool (and widening it also for towns and regions) and exchanging cycling knowledge in Europe.

Within the last nine years BYPAD has created a pan-European network of around 100 cities, towns and regions in 21 European countries. 58 certified auditors were trained to supervise the audit process and the city networks POLIS, Energie-Cité and ICLEI were involved in dissemination activities.

Through BYPAD both a serious quality improvement tool and a strong network of cycling experts arized; and a platform for exchanging cycle knowledge and experiences between (cycling)cities/regions was founded. In the mean while BYPAD has become the quality standard for cycling policy. Different national and regional cycling strategies (e.g. Austria, Germany, Czech Republic, …) are advising to use BYPAD as a quality management tool to improve the local cycling policy.

After these almost nine years of European support, BYPAD has become mature enough to stand on its own and to become a platform which wants to improve the quality of cycling policies and by this increasing cycle use and improving cycle safety by:

1. Implementing cycle audits in cities and regions
2. Exchanging cycling knowledge and expertise among members of the BYPAD-network (Auditors, cities, towns and regions).

From January 2009 a BYPAD-board will be created which is coordinating all central BYPAD-supporting activities. This means communication (website, newsletter, …), training auditors, handing over BYPAD-certificates to cities/regions, organizing workshops, … This BYPAD is formed by some of the core-partners of the BYPAD EU-projects: FGM-AMOR (Austria), Velo:Consult (Switzerland), TIMENCO (Belgium-The Netherlands), CDV (Czech Republic) and ECF. The financial basis for these central

activities will come from the membership fees of auditors and fees from cities/regions that are using BYPAD.

This publication wants to show where we are with cycling policy in Europe based on the experiences of the BYPAD-audits. We are looking for answers why there are such huge differences in cycle use between countries, regions and cities. What are influencing factors for having a high cycle use and how you succeed in changing the attitude towards cycling?

Are there differences in approach between countries (e.g. more emphasis on infrastructure in North European countries)? Can we speak about different phases in cycling policy and linked to these phases different packages of cycle measures?

A first part is giving the basic information on BYPAD and also compares BYPAD with other evaluation tools in Europe.

The second part focuses on the differences in cycle use and cycling policy in Europe and shows the results and conclusions of BYPAD. We will also introduce some BYPAD-cities with their city portrait and their experiences with BYPAD.

1 BYPAD: TOTAL QUALITY MANAGEMENT IN CYCLING POLICY

1.1 Total quality management and BYPAD

1.1.1 Auditing and benchmarking

For improving products or services of (big) companies, research institutes, governmental organisations there are all kinds of improvement processes based on sets of criteria and benchmarks who indicate the strengths or weaknesses of an organisation. We are speaking about audit schemes. By using the same audit scheme on a regular basis and in as much different organisation as possible there is growing a huge list of criteria who indicate if you are doing well or not. The best examples are the benchmarks.

The goal of BYPAD is the same. Defining quality standards by collecting information on all different aspects of cycling policy in a standardised manner. Based on experiences in many cities, regions, ... a set of quality standards is created. And this helps cities, regions to reset their ambitions and goals with regard to become a better cycling city.

Repeating the same audit process on a regular basis also indicated in which fields you are making progress and where you have to improve yourself. This way an audit is a perfect monitoring tool.

1.1.2 Total Quality management

Quality management is the unity of methods, techniques, procedures and systems an organisation is using to improve the quality of their products and services. Bringing in competent personnel, organising necessary education, evaluating the intern communication, having a good financial management are all parts of *quality management.* Each organisation is busy doing quality management up to a certain level, even without using the expression.

When *quality management* is applied systematically and general in an organisation by all persons concerned, we can speak about *Total Quality Management* or *TQM.* The international ISO norm 8402 defines TQM the following way:

> " *A management approach of an organisation where quality improvement is the main goal and that is based on the participation of all employees. Aim is to book success in a long term thanks to satisfaction of the customers, advantages for the employees and the society.* "

Nowadays the system models, such as ISO and EFQM, catch on. These audits emphasise the total approach. Where formerly quality management was a separate and sometimes even an isolated event (e.g. improvement of financial system), the modern methods emphasise the integration with the policy and integration of the organisation.

An important difference between the above mentioned audit systems, ISO 9000 and EFQM, lies in the audit approach.

ISO-certificate (static quality control)

In the ISO 9000-series the organisation has to comply with a specific list of standards. When all standards are achieved, the company is considered to be qualitative and receives an ISO 9000 certificate. Nowadays you won't find a large company without such an ISO certificate.

With this audit system an organisation has proved that the quality is assured on a specific moment. The ISO system means *quality assurance*. In the ISO system however the policy of an organisation is not considered as a dynamic process. The organisation doesn't see if there has been made progress in the quality of their products and services and what can be the evolution in the future. The ISO approach is a **static quality control system**.

EFQM-model (dynamic process)

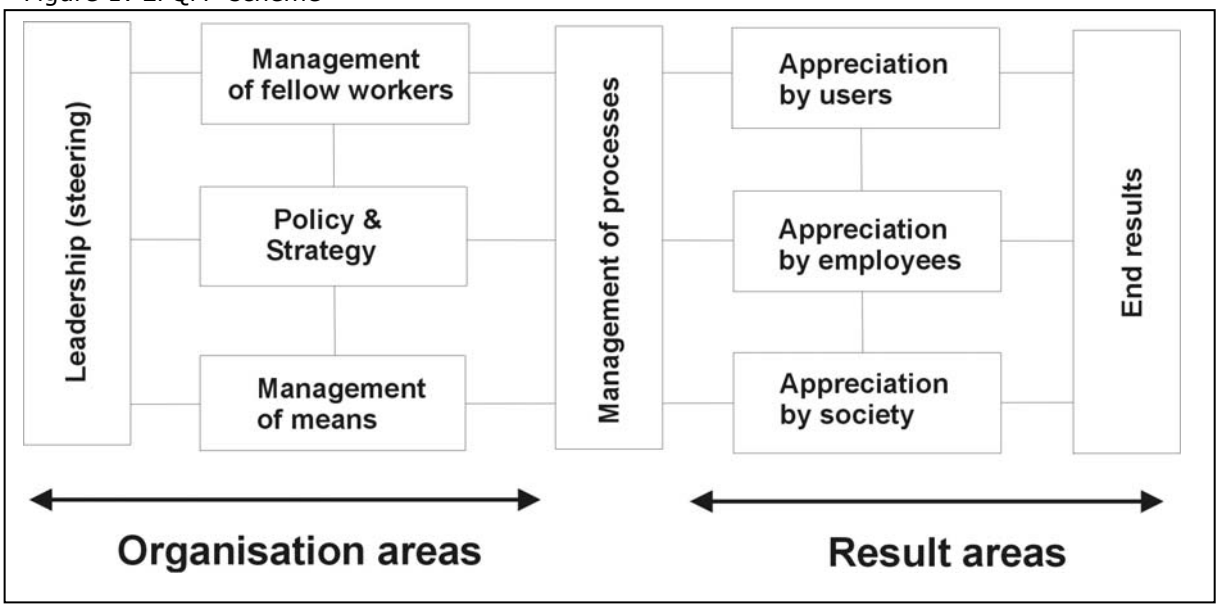
Contrary to the static quality control systems, where the existing quality is screened by means of fixed standards, the EFQM-model considers quality management as a dynamic process. Quality is never finished. On all levels there is a continuous quality evolution.

The EFQM-model is a European audit model for internal quality management. EFQM stands for European Foundation For Quality Management. Since the crisis at the end of the 80's this model has been accepted in the business world. The EFQM-model clearly stipulates that a policy is only successful if the clients (users), the employees, the management staff and the whole organisation are satisfied. The success factor is dependent on the total management process.

A characteristic of the EFQM-model is that it is a **self-evaluation model** where the managers, the employees and the users are actively involved.

In the EFQM-model there are nine points of attention. Five of these points describe the organisational aspects within the organisation. Four of these points describe the results of the management process in an organisation. There is coherence between the nine points of attention. Satisfaction by users and employees and a positive appreciation by the society will be reached through a goal-orientated leadership that gives content and direction to the policy and strategy of the organisation (bicycle policy), to the management of fellow workers, to the management of means and the management of processes, to end with good results (innovative bicycle measures).

Figure 1: EFQM- scheme



It are these characteristics which are also relevant for a quality management tool for cycling policy:

- The bicycle policy in a city or town is a dynamic process (e.g. the demands of users will always get higher)
- Having good results in cycling policy (high bicycle use, low bicycle accidents) is dependent on both organisational areas as results in the field (infrastructure, campaigns, ...)
- The evaluation of the bicycle policy should be done by the directly involved actors: the users, the officials/civil servants and the politicians. Such a self-evaluation process can be guided by an external auditor.

It are these preconditions which we found in the EFQM-model which is also the basis of the bicycle audit BYPAD.

1.2 BYPAD-method

BYPAD is based on the EFQM-approach which is transferred to the subject of (local) cycling policy. Through BYPAD, municipalities can initiate a process of continuous quality improvement. To achieve this, BYPAD combines cognitive, conversational and learning elements. The quantitative assessment of the individual aspects of cycling policy helps to convince the rationalists (cognitive element). Discussing the cycling policy within the evaluation group of decision makers, policy makers, executive staff and the user organisations ('clients') strengthens the political will to improve the quality of the cycling policy (conversational element). Assessing the cycling policy in a moderated process supervised by an external auditor, strengthens the effect of learning (learning element). Also the regional, international seminars and the good practice database strengthen the effect of learning.

1.2.1 BYPAD a dynamic process

BYPAD regards cycling policy as a dynamic process where different components need to fit together to be successful. BYPAD does not only scrutinise outcomes and effects of the local cycling policy, but also if and how this process is embedded in the political and administrative structures. Are there objectives for the cycling policy? Is the selected strategy adequate to achieve these objectives? Are the allocated resources in balance with the objectives, and is the continuity of financing safeguarded? Is cycling policy restricted to a few infrastructural measures or is the wide range of pro-cycling measures put into effect, including measures to discourage car use? Is there cross sectoral co-operation with strategic partners? How is safeguarded that the measures taken achieve the objectives strived for?

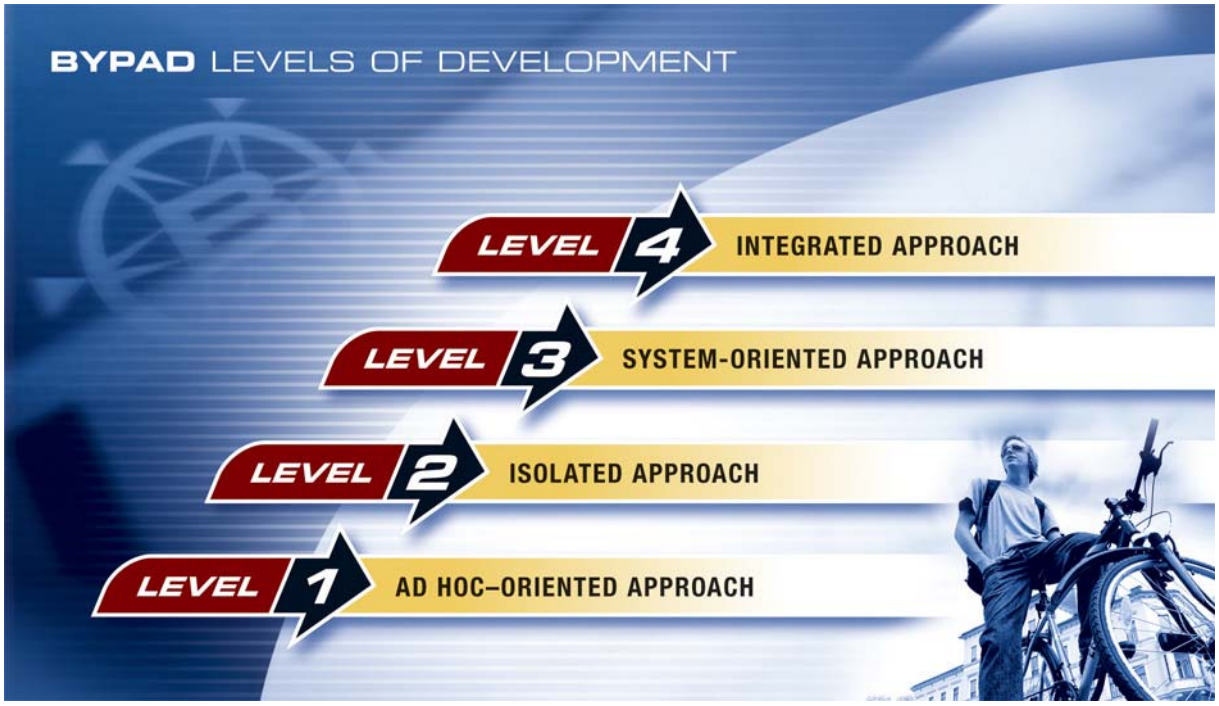
BYPAD distinguishes nine modules, whose qualities are determined separately (see Figure 2). For each module, a quality level is assigned on the BYPAD ladder of development which has four levels in total. The results of all nine modules altogether determine the overall quality level of the cycling policy. On the basis of the results for each module, the municipality can define quality objectives and derive measures separately for each module. Besides that, it is possible to monitor the evolution of the local cycling policy.

Figure 2: BYPAD modules

1.2.2 Ladders of development

The principal item of BYPAD is the questionnaire, which consists of 30/22/18 questions covering all aspects of cycling policy for cities/ towns/ regions. For each module, it contains a number of questions, whose answers are preset. They describe appropriate measures which have successfully been implemented in European cities. A quality level between 1 and 4 is assigned to each answer (see Figure 3). The quality level is zero, if no action is taken. BYPAD is kind of a mirror for the city's cycling policy. It detects the weakest link in the quality chain and shows where improvements are necessary and possible. By filling in the questionnaire the city (town, region) receives direct inspiration of what could be done for climbing up to the next quality level.

Figure 3: BYPAD ladder of development



The levels of development are:

Level 1: Ad hoc oriented approach

Fire brigade principle: Cycling policy is mainly limited to problem solving. Measures are mainly focussed on infrastructure or road safety at specific locations. Cycling policy is on a low quality level which is characterised by low and irregular budgets, few officials with low skills and without competence. Quality is a result of individual efforts only.

Level 2: Isolated approach

Robinson Crusoe principle: There is already a cycling policy, but it is neither integrated into the overall transport policy nor in other policy fields such as land use, health, environmental policy. Good infrastructure is the main concern of the policy, although some supplementary activities are undertaken. Cycling policy is characterised by some use of data and a limited knowledge of the users' needs, global agreements with a limited compulsory character, measures which are often counterproductive, because they are not tuned to the needs of other road users or not integrated into the objectives of other policy fields. Continuity isn't safeguarded.

Level 3: System orientated approach

We are pulling into the same direction: Cycling is regarded as a system, which is integrated into the overall mobility policy. The political will to support the cycling policy is underlined by a sophisticated local cycling strategy and appropriate budget allocation. The cycling policy comprises a wide range of different measures; different target groups are targeted with tailored measures, partly in co-operation with other

public and private partners. Cycling policy is based on good data and the knowledge of user needs, but still on a project basis with limited running time.

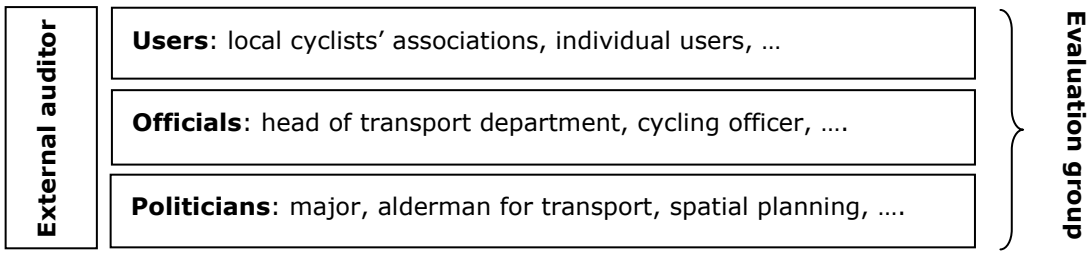
Level 4: Integrated approach

The winning team: Cycling policy is regarded as a permanent task with strong relationship to other policy fields. Measures to encourage cycle use are complemented by measures to discourage car use. There is strong political support, good leadership, regular budget allocation, enough skilled staff and comprehensive in-house expertise. Systematic networking and regular exchange of information, knowledge and experiences with internal and external actors help to raise and maintain the quality standard. The cycling policy is characterised by the availability of high quality data, regular monitoring and evaluation, strategic partnerships with the aim to win these partners over to allies who contribute their part to the local cycling policy.

1.2.3 BYPAD evaluation group

A key issue in the BYPAD approach is that the whole process of evaluation and quality improvement is carried out by a local evaluation group. This evaluation group consists of politicians responsible for cycling, policy makers and executive staff of the municipality dealing with cycling, and representatives of the local cyclists' user organisation(s), who use the 'product' of the local cycling policy. Bringing these three different players together, BYPAD assures that the local cycling policy is examined critically from different perspectives.

The evaluation group looks for strengths and weaknesses of the cycling policy in order to find jointly a consensus on fields where improvements are necessary and possible. The audit process is supervised by an external consultant, who is a certified BYPAD auditor.

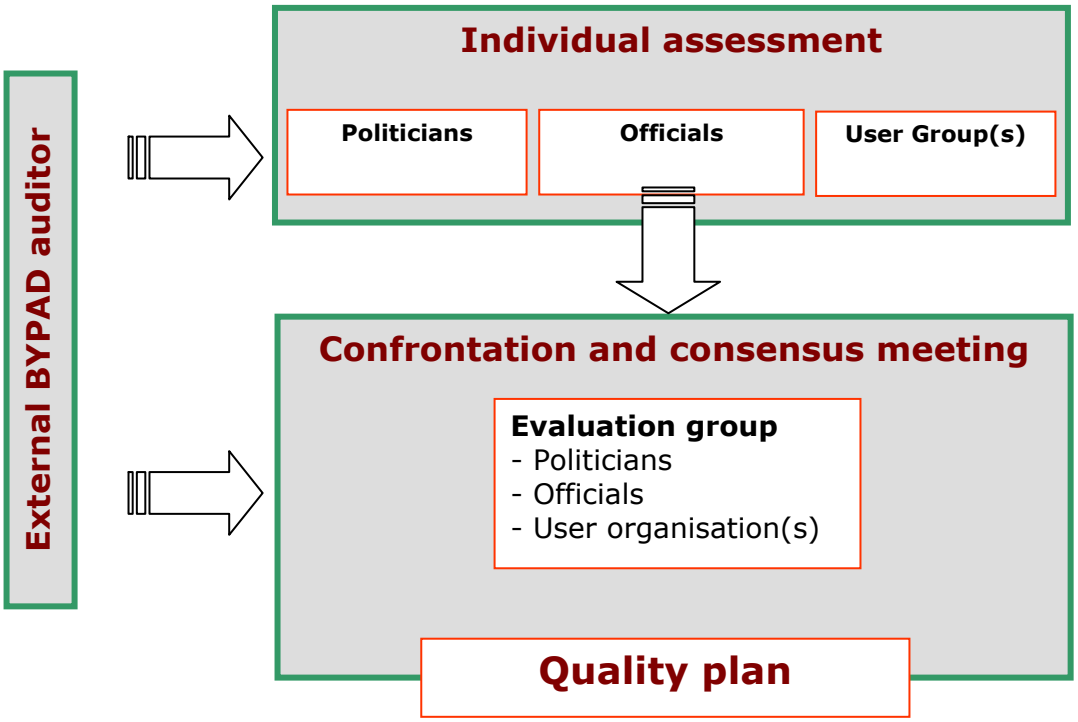


1.2.4 BYPAD process

At the beginning of the evaluation process, each member of the evaluation group fills in the BYPAD questionnaire individually. For each single aspect of the cycling policy, each member of the evaluation group assigns a quality level between 1 and 4. In a following meeting, when the whole evaluation group comes together, they are confronted with the judgements of the other members. It is the objective of this

meeting to find a consensus on the strengths and weaknesses of the actual cycling policy and to assign jointly a quality level to each question of the questionnaire. Based on the results of this debate, the evaluation group develops a quality plan for the future cycling policy during a second meeting.

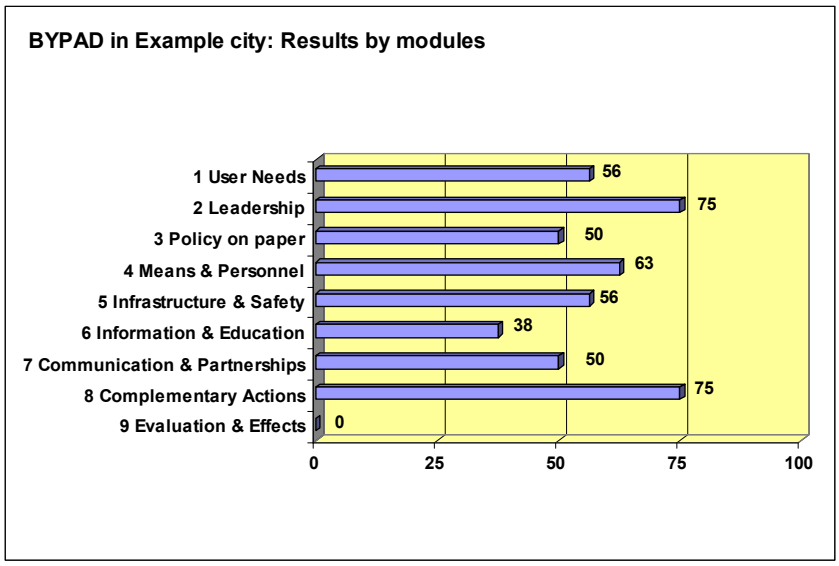
Figure 4: BYPAD-process



1.2.5 Certifying quality

As a result of a BYPAD audit process, a city/ town/ region gets scores for each of the nine modules and for its cycling policy as a whole. These scores indicate straightaway where the strengths and weaknesses of a city's cycling policy are. The interim and final reports of the audit, written by the auditor, are a detailed inventory of the cycling policy so far and a documentation of the audit process. The quality plan documents the objectives, main fields of action and measures the evaluation group has agreed on.

Figure 5: BYPAD-scores



Responsible policy-making is rewarded. After completion of the BYPAD-audit, the city receives the BYPAD certificate. This certificate confirms the active commitment of decision-makers, administrative bodies and citizens to a modern, high-quality cycling policy.

BYPAD ceremony at Velo-city 2007 in Münich.

Besides this city marketing; BYPAD offers the cities an objective monitoring tool for following up the improvements of their cycling policy. Repeated applications of BYPAD give cities/ towns/ regions the basis for setting out their cycling policy. For many cities the BYPAD-audit is the door-opener to start up improvement actions for the local cycling policy.

1.2.6 Recognized method

In the national cycling strategies of Germany, Czech Republic and Austria, BYPAD is recommended to cities and towns as the QM-tool to improve their cycling policy. In the Czech Republic, the awarding of subsidies is coupled with the application of BYPAD. In Nordrhein-Westfalen (Germany), the application of BYPAD can be co-financed by the state government.

1.2.7 BYPAD is no beauty contest

Main goal of BYPAD is to improve the bicycle policy of a city / region by this internal evaluation process and by learning from other experiences in European cities/regions. It is however a conscious choice of the city itself to use BYPAD and both the strongest elements as the weakest elements of its cycling policy will be detected.

Within the BYPAD-network it is however also attractive for the cities to compare its BYPAD-scores with other cities. A classical question which every major of a city wants to know is: "Are we the best European cycling city or who is the best cycling city?" This is however not the question you can easily answer with BYPAD. Following differences are inherent to comparing different cities in different cities:

- Geography of a city
- Different BYPAD-auditors
- Other personal opinions of the people in the evaluation groups
- Other cycling culture

At first place BYPAD should be used as an internal evaluation tool to improve its own cycling policy. Comparing the BYPAD-results every two or three years in a city is much more interesting to comparing 'apples with lemons' (see Figure 6: **Comparison BYPAD-scores in Gent (2001-2004)** . At second place it is nice to see how other cities are scoring, but it always should be taken into account that this comparison is not reliable.

Figure 6: Comparison BYPAD-scores in Gent (2001-2004)

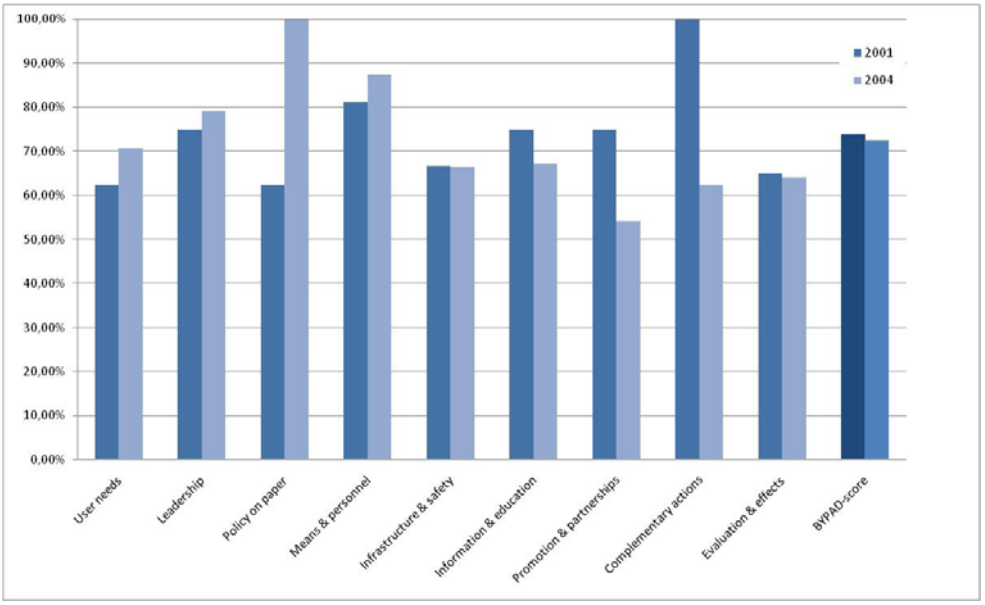
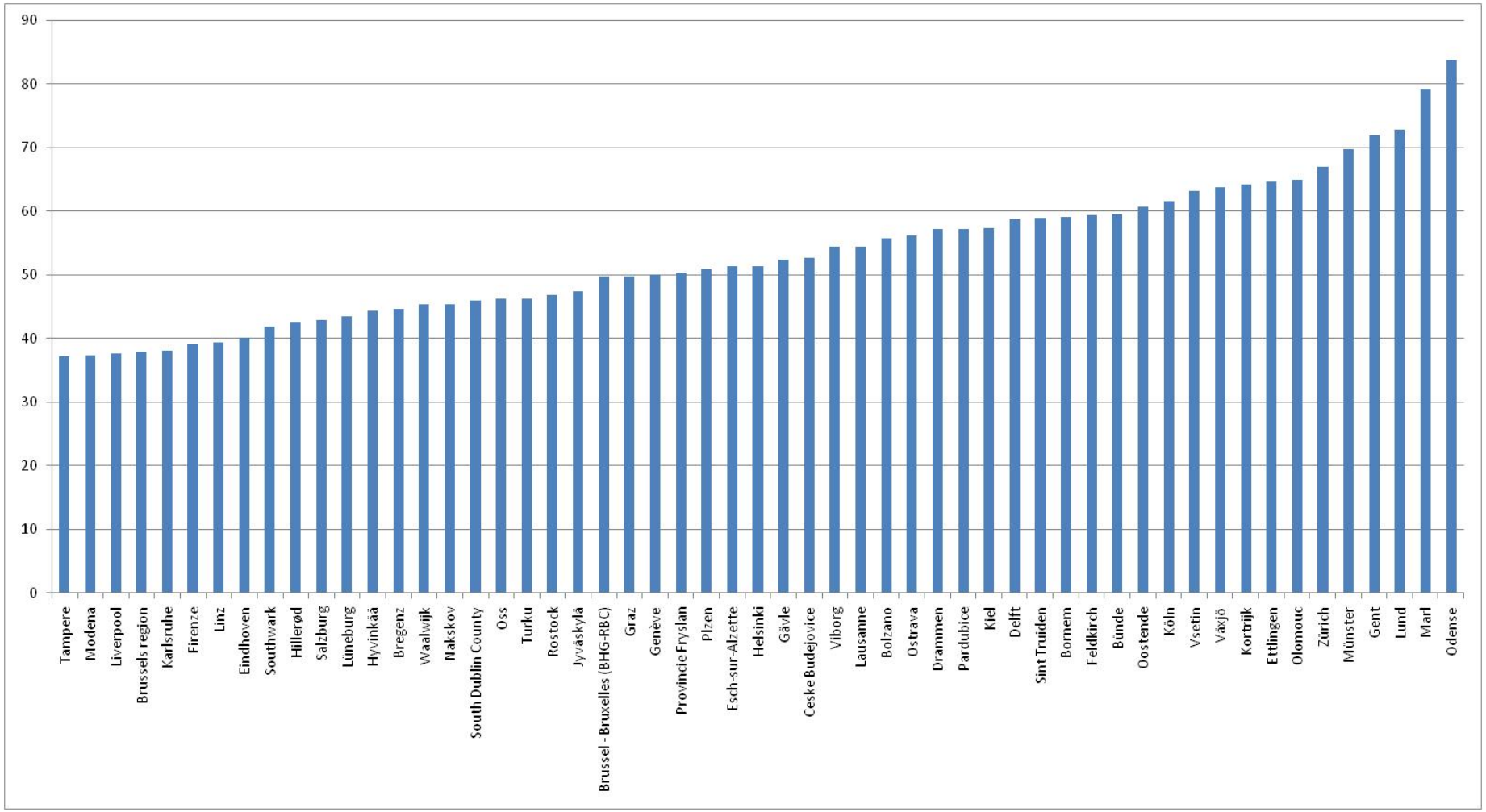


Figure 7: Scores BYPAD-cities



1.3 BYPAD in Europe

1.3.1 EU-projects

BYPAD was developed with European support via the SAVE and STEER programmes which support projects on sustainable urban transport. BYPAD has been developed and continuously further developed and applied since 1999, with support from the European Commission. Meanwhile more than 100 cities, towns and regions in 21 European countries are evaluating and improving their cycling policy, supervised by 58 certified auditors from these countries.

BYPAD-1999-2001: research project

The BYPAD-tool was developed in 1999 -2001 by an international consortium[1] in the framework of an EU project (100% funded) and tested in seven European cities: Gent, Graz, Troisdorf, Birmingham, Zwolle, Ferrara and Grenoble. The first BYPAD-tool was focussed on mid-sized and big cities. Because of the enthusiastic reactions of the test-cities a follow up project – BYPAD+ – started in 2003.

BYPAD+ 2003-2004: training-dissemination project

The aim of the subsequent EU project BYPAD+[2] (50% funded by the EU) was to improve the method and to apply BYPAD Europe wide. The BYPAD-tool was simplified, a training programme was set up and an active dissemination programme with regional workshops, international seminars, and interactive website, newsletters was set up.

At the end of 2004 an international network of certified BYPAD auditors was set up in 16 European countries. They succeeded to implement BYPAD in about 60 cities in Europe.

BYPAD-platform 2006-2008: widen method + dissemination project

The last EU-project[3] (50% funded) started in 2006 and ended in September 2008. Goal was to widen the BYPAD-tool for towns and regions and to expand the network of auditors, cities, towns and regions to central Europe and the new member states.

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[1] Langzaam Verkeer, Belgium (co-ordinator), FGM-AMOR, Austria, velo:consult, Switzerland, European Cyclists' Federation

[2] Same consortium

[3] Vectris, Belgium (co-ordinator), IMOB-Hasselt University, Belgium, FGM-AMOR, Austria, velo:consult, Switzerland, Ligtermoet & Partners (The Netherlands), CDV (Czech Republic)

There has been developed a BYPAD-city, BYPAD-town and BYPAD-region tool and there have been trained 37 new BYPAD-auditors. Also the existing BYPAD-auditors followed an expert training to exchange all relevant new knowledge on cycling policy. In September 2008 BYPAD was implemented in more than 100 EU-cities / regions in 21 countries, guided by 58 certified auditors.

January 2009 …. : BYPAD-board as an independent organisation

The BYPAD-platform project was the last EU-funded BYPAD-project. Since October 2008 BYPAD stands on its own. For giving a continuation to the BYPAD-activities some of the founding partners have started up a BYPAD-board which will give a continuation to all central BYPAD-activities. These activities are: updating the audit, organizing BYPAD-trainings, updating best practice database, certify BYPAD-cities/regions, communication (website, newsletter, …), handing over BYPAD-certificates to cities/regions, organizing workshops/excursions, … This BYPAD board is formed: FGM-AMOR (Austria), Velo:Consult (Switzerland), TIMENCO (Belgium-The Netherlands), CDV (Czech Republic) and ECF. The financial basis for these central activities will come from the membership fees of auditors and fees from cities/regions that are using BYPAD.

1.3.2 BYPAD in towns, cities and regions

For implementing BYPAD there have been developed three different questionnaires to do the evaluation process. Reason for this is that depending on the size of a city and depending on the policy level of the authority there are a lot of differences in kind of measures you can implement for cycling policy. There has been made a specific questionnaire for:

- Towns

  Under *towns*, we understand municipalities with a (limited) urban character. As a guide number, a town has around 30.000 to 50.000 inhabitants, but this figure really varies from country to country.
  Concerning the administrative organization, a town has a small administration where one or two persons have responsibility for all tasks concerning cycling, transport and urban planning policy.

  There are 18 questions in the BYPAD-questionnaire for towns. The BYPAD-town questionnaire has been developed in 2006. In the period 2006-2008 13 towns have been implemented BYPAD

- Cities and agglomerations

  Under *cities and agglomerations*, we understand large urban areas which functionally need one integrated traffic policy. In practice these areas could cross different administrative borders (urban agglomerations) but it is vital to have a common vision on the transport / cycling policy.

As a lower limit, a city or agglomeration should at least have 50.000 inhabitants, but this figure really varies from country to country (e.g. a city of 50.000 inhabitants is mid-sized for Germany, while it is a large city for Slovenia).

Concerning the administrative organization, a city or agglomeration already has a rather big administration with different (city) departments which are dealing with transport, land use planning, education and environment.

There are 30 questions in the BYPAD-city questionnaire. The BYPAD-city questionnaire has been developed in 1999 and since has been adapted regularly. In the period 1999 – 2008 88 cities have implemented BYPAD

- Regions

Regions are the administrative level above the municipalities. Depending on the country, we are speaking about provinces, regions, counties, …

Regions do have their own tasks in infrastructure planning, transport planning, education,… The list of tasks differs from region to region. BYPAD distinguishes two main types of tasks:

> **Type A:** Executing direct cycling policy-measures: Realization and promotion of a regional cycling network and of bicycle facilities on/along regional roads, for daily and/or recreational cycling.
>
> **Type B:** Implementing an indirect policy of stimulating the cycling policy of municipalities and local organizations: Facilitating local actors with funds, arguments, tools and knowledge.

Depending on the type of region you are auditing, you have to answer the questions which are related to Type A or Type B regions.

There are 23 questions in the BYPAD-region questionnaire. The BYPAD-region questionnaire has been developed in 2006. In the period 2006 – 2008 18 regions have implemented BYPAD

Table 1 gives an overview of the cities/towns and regions which have implemented BYPAD in the period 1999-2008. As the BYPAD-tool is at first place a self-evaluation instrument most of these authorities will use BYPAD again to see if they have made progress in their cycling policy in the last years.

Table 1: BYPAD-cities and regions in the period 1999-2008

Nr	City/Region/town	Country	Year
1	Linz	Austria	2001
2	Graz	Austria	2000
3	Salzburg	Austria	2002
4	Schwechat	Austria	2003
5	Graz	Austria	2003
6	Bregenz	Austria	2005
7	Feldkirch	Austria	2006
8	Land Steiermark	Austria	2006
9	Dornbirn	Austria	2007
10	Lustenau	Austria	2007
11	Gent	Belgium	2000
12	Kortrijk	Belgium	2003
13	Oostende	Belgium	2004
14	Brussels	Belgium	2004
15	Gent	Belgium	2006
16	Brussels	Belgium	2006
17	Sint Truiden	Belgium	2006
18	Bornem	Belgium	2007
19	Pardubice	Czech Republic	2003
20	Ostrava	Czech Republic	2003
21	Olomouc	Czech Republic	2003
22	Ceske Budejovice	Czech Republic	2003
23	Vsetin	Czech Republic	2004
24	Plzen	Czech Republic	2004
25	The Usti Region	Czech Republic	2008
26	The Hradec Králové Region	Czech Republic	2008
27	The Region of Central Bohemia	Czech Republic	2008
28	The Zlín Region	Czech Republic	2008
29	The Olomouc Region	Czech Republic	2008
30	The Region of South Bohemia	Czech Republic	2008
31	The Region of South Moravia	Czech Republic	2008
32	Viborg	Denmark	2003
33	Odense	Denmark	2003
34	Nakskov	Denmark	2003

35	Hillerød	Denmark	2003
36	TARTU	Estonia	2006
37	Tallinn	Estonia	2007
38	Tampere	Finland	2003
39	Jyväskylä	Finland	2003
40	Helsinki	Finland	2003
41	Hyvinkää	Finland	2004
42	Turku	Finland	2004
43	Grenoble	France	2000
44	Montbeilard	France	2003
45	Versailles	France	2003
46	Grenoble	France	2006
47	Troisdorf	Germany	2000
48	Bünde	Germany	2003
49	Marl	Germany	2003
50	Münster	Germany	2003
51	Ettlingen	Germany	2003
52	Köln	Germany	2003
53	Karlsruhe	Germany	2004
54	Lüneburg	Germany	2004
55	Kiel	Germany	2004
56	Rostock	Germany	2005
57	Troisdorf	Germany	2006
58	Unna	Germany	2007
59	Kreis Borken	Germany	2007
60	South Dublin County	Ireland	2004
61	Ferrara	Italy	2000
62	Firenze	Italy	2004
63	Modena	Italy	2004
64	Bolzano	Italy	2004
65	Ferrara	Italy	2007
66	Provincia di Milano	Italy	2007
67	Arese	Italy	2007
68	Garbagnate Milanese	Italy	2007
69	Cesate	Italy	2007

70	Sesto San Giovanni	Italy	2007
71	Melegnano	Italy	2007
72	San Donato Milanese	Italy	2007
73	Princedom Lichtenstein	Liechtenstein	2007
74	Schaan	Liechtenstein	2007
75	Mauren	Liechtenstein	2007
76	Eschen	Liechtenstein	2007
77	Balzers	Liechtenstein	2007
78	Esch-sur-Alzette	Luxembourg	2007
79	Drammen	Norway	2004
80	Tczew	Poland	2008
81	Gdansk	Poland	2008
82	Malbork	Poland	2008
83	Seixal	Portugal	2004
84	Beja	Portugal	2004
85	Cascais	Portugal	2004
86	Domžale	Slovenia	2008
87	Brežice	Slovenia	2008
88	Murska Sobota	Slovenia	2008
89	Rogaška Slatina	Slovenia	2008
90	Škofja Loka	Slovenia	2008
91	Region Maribor	Slovenia	2008
92	Region Kranj	Slovenia	2008
93	Ptuj	Slovenia	2008
94	Menorca	Spain	2006
95	Mataró	Spain	2007
96	Donostia	Spain	2007
97	Lund	Sweden	2004
98	Växjö	Sweden	2004
99	Karlstad	Sweden	2005
100	Gävle	Sweden	2006
101	Falun	Sweden	2006
102	Basel-Stadt	Switzerland	2002
103	Lausanne	Switzerland	2004

104	Genève	Switzerland	2004
105	Zürich	Switzerland	2006
106	Canton of Zurich	Switzerland	2007
107	Zwolle	The Netherlands	2000
108	Delft	The Netherlands	2003
109	Emmen	The Netherlands	2004
110	Waalwijk	The Netherlands	2004
111	Eindhoven	The Netherlands	2004
112	Oss	The Netherlands	2004
113	Zwolle	The Netherlands	2007
114	Stadsgewest Haaglanden	The Netherlands	2007
115	Provincie Zeeland	The Netherlands	2007
116	Provincie Fryslan	The Netherlands	2007
117	Birmingham	United Kingdom	2000
118	Liverpool	United Kingdom	2004
119	Southwark	United Kingdom	2004

Figure 8: BYPAD-cities in Europe

Figure 9: BYPAD-cities in Spain-Portugal

Figure 10: BYPAD-cities in central-Europe

Figure 11: BYPAD-cities in West-Europe

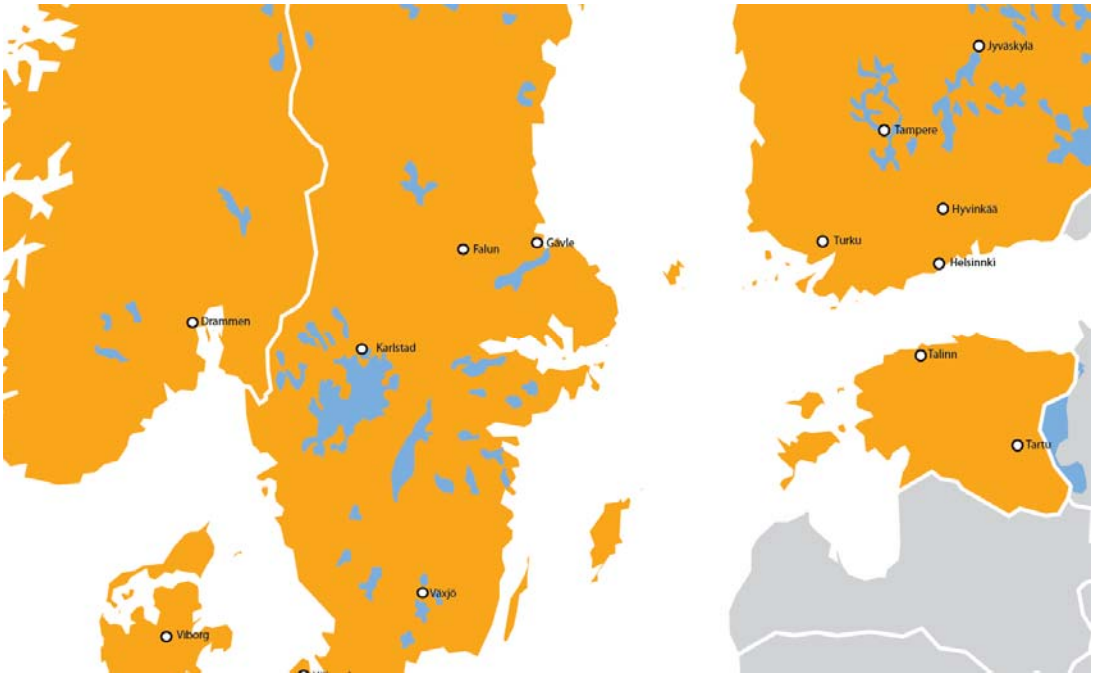


Figure 12: BYPAD-cities in Scandinavia

Figure 13: BYPAD-cities in Ireland and the UK

1.3.3 Exchange of cycling expertise

Besides implementing the BYPAD audit and making a cycling quality/action plan for a city/town/region the second goal of BYPAD is the exchange cycling expertise in Europe. Following activities are organised for reaching this goal:

- **National/regional workshops, by language region**. On these workshops, the participating cities/regions actively play a role and new cities/regions are coming into contact with the BYPAD-tool (e.g. Recklinghausen, Germany, in German for D-A-CH. Genève, Switzerland, in French for CH-F-B), 's Hertogenbosch, The Netherlands, in Dutch for NL-B, Lund, Sweden, in Swedish and Danish for S-DK-N).
- **International seminars / excursions**: international seminars on specific cycling topics and excursions are organised to stimulate the exchange of cycling expertise (e.g. Ceske Budejovice/Czech Republic 2006, Munich/Germany 2007, Tartu/Estonia 2008, …).
- **BYPAD-website**: www.bypad.org is both an informative medium as a working instrument for the BYPAD-auditors and BYPAD-cities/regions. There is a *public area* (with information on the BYPAD-method, contact points, experiences of cities, best practice database) and a *protected area* with results of the BYPAD-cities, city reports, BYPAD-questionnaire, city registration etc.
- The **best practices database** of BYPAD gives examples of all BYPAD-cities. This means there are given examples for all different quality levels in cycling policy.

Cities, regions that are on a low level also find inspiration what they can do in cycling policy.

- The **3 BYPAD-questionnaires** for cities/ towns/ regions are each available in 15 languages.
- The **BYPAD-newsletter**, published 3 times a year, is disseminated throughout the BYPAD network and via the contacts of the BYPAD auditors and network partners.

1.4 Other evaluation methods

During the last ten years there is an increasing awareness for the need of a high-quality cycling policy. Looking for manners for assessment and improvement of the quality of local cycling policy, benchmarking instruments and indicator systems have been developed and measures and programmes have been evaluated in several countries:

- United Kingdom: *Benchmarking project* of the CTC (user organisation);
- Netherlands: *Fietsbalans* (*Cycling Balance)* of the Dutch cyclists' association (user organisation);
- Switzerland: *Indicators for cycle-friendly cities and towns* (research project of the SVI);
- Germany: *Evaluation of the cycling policies* of the member cities of the city network ‚Cycle-friendly cities and towns in Nordrhein-Westfalen' (region of North-Rhein-Westfalen)
- Bicycle Account of Copenhagen

Each method has his own approach and the focus is sometimes on different aspects. Also the initiator who decides to work with the instrument is very important. For instance, The Cycling Balance in The Netherlands is an initiative of the Dutch cyclists' association who wants to award the best cycling city of the year. At the same time they are delivering a status report on the comfort of cycling (by means of a measure bicycle) in that city. The Dutch Cyclists' Association is doing a lot of national wide press communication on the results of the Cycling Balance and by this approach the screened cities feel the pressure to get cycling policy on a high quality standard. The result of the Cycling Balance is the opinion of the user groups association.

In BYPAD it are not the user groups who are the initiators of the audit. It is really the city/region who decides: "I want to improve my bicycle policy, and I am going to use BYPAD to make an advice on the actual quality level and the improvement steps". The external pressure to become the best cycling city is less strong, but with BYPAD you can be sure that the city really has ambitions to improve cycling policy.

In the next tables you find an overview of the characteristics of the different evaluation methods for cycling policy.

	BYPAD (Europe)	CTC Benchmarking local cycling policy (UK)	The Cycle Balance (Netherlands)	Benchmarking cycling in towns & villages (Switzerland)	Bike-Friendly cities and towns (Germany)
Initiative implementation	Municipality	Cyclist Union	Cyclist Union	Municipality	Municipality
Object of investigation	Cities, towns and regions	Cities, towns	Cities, towns	Towns	Cities, towns, regions
Parties involved	• politicians • civil servants • users / user group • external supervisor	Facilitator, nominated person authority. At visits also: other officers and users.	Users, officials	Evaluation itself: municipality Later: all people who can be a driving force	Ministry, experts, specialists-group, city
Procedure	1) Collecting prerequisite information 2) self-auditing on the basis of a questionnaire first individually by the 3 groups (politicians, civil servants, user groups) 3) confrontation and consensus meeting 4) draw up a cycling policy quality plan 5) Final report The process is coordinated by an extern supervisor	1) state of affairs 2) introduction quality management 3) comparison with other cities (benchmarking), each city visit each other cities 4) consolidation and action plan (=key output) 5) evaluation visits are key-part	Assessment of the local conditions for cyclists on the basis of 10 dimensions. Then compare the results with other cities 1. existing and developed standards 2. average scores of all assessed towns and towns of roughly the same size 3. best scoring towns - Quick scan to assess city - Questionnaire municipality - Questionnaire cyclists - Field test (meetfiets)	Describe bicycle policy (with the evaluation guide) and reinforce communal policy in favour of cycling With the filling in of the guide the participants are been motivated to develop a future vision on bicycle policy. Based on strategies, determination of needed people, provided incentives (by showing best practices). Give ideas, don't judge	On the basis of some qualitative criteria, a visit by the selection commission (or two visits) certain cities are selected as bike-friendly cities. 1) Application city 2) Check by ministry 3) Preparations by 2 experts 4) Recommendation 5) 18 specialists visit city 6) Another recommendation 7) Ministry decides, if yes: sign and document Membership for 7 yr. then new application necessary
Duration / time involved	3-4 months: Politicians: 3,5 days, employees: 7 days, user groups: 3,5 days, process supervisor: 15 days.	9-12 months: 25-40 days participant (1 or 2 persons), 3 day / week facilitator	4-6 months: 1 day civil servant, 15 days Bicycle Union	1 or 2 days	See above: (2) 1 day (3) 1 or 2 days (5) 1 day

	BYPAD (Europe)	CTC Benchmarking local cycling policy (UK)	The Cycle Balance (Netherlands)	Benchmarking cycling in towns & villages (Switzerland)	Bike-Friendly cities and towns (Germany)
What aspects	(0) background information (1) user needs (2) policy steering / leadership (3) strategy & procedure (4) management means (5) management personnel (6) projects & actions (7) evaluation & monitoring	All: from promotion to engineering design, from training to maintenance of cycle paths (policy and practice)	Physical aspects	- Potent ion - Construction - Practice and use - Means	See bike traffic as a system → broad view
Emphasis / focus	Policy	Networking, comparison (best practices)	Result, publicity and influencing public opinion	Creating a bicycle culture	Best practices
Outcome	- Report - Quality plan	- 500 specific examples of good practice, nearly half best practices - action plans - network	- Standardized report (65-70p. Very detailed) - Comparison of city result - Recommendations for improvement - Official presentation of report to city (with media)	Definition of 7 levers for promotion of bicycling Greater awareness of importance cycling	- Increased bike use - Higher safety bikers - Learning from each other - Exchanging experience - Promotion bike
Strengths	- Given answers give inspiration - Comprehensive approach - Profound analysis of how results are obtained - Involvement all actors - External (objective) process supervisor	- In-depth analyses of processes behind best practices - Opportunity to review and update performance indicators and targets - Raised profile of cycling - Increased confidence - Networking	- Bicycle user as perspective - Objective measurement	- Raise awareness of importance bicycle - Give inspiration - Very quick method, not at all time-consuming	- Create a better climate for bikers - 10th anniversary: new guidelines - 7 yearly review, keep the cities alert

	BYPAD (Europe)	CTC Benchmarking local cycling policy (UK)	The Cycle Balance (Netherlands)	Benchmarking cycling in towns & villages (Switzerland)	Bike-Friendly cities and towns (Germany)
Weaknesses	- Formulation different levels of developments not clear enough - Two questions in one - Questions too long/complex - Answers not always relevant - Information financial means - Collecting quantitative data - Very time-consuming	- Availability of data bottleneck - Limitations of making meaningful comparisons (uniqueness local auth.) - Qualitative data can't be measured directly - Not comprehensive - Very time-consuming	- Technical character, black box for cities - General character, no identification of bottlenecks - Usability relies on local branches Cyclist Union - Initiative outside decision-makers - Very time-consuming	- Not systematically	- Selecting method isn't scientifically sound and not easily comprehensible
Future / ambitions	BYPAD-organisation who offers training and auditing on cycling policy.	Exploring avenues to undertake benchmarking at regional level	Not mentioned	Not mentioned (maybe support at national level)	Develop bike traffic plan based on concept of bike traffic as a system and an integrative approach in traffic planning. Also attention for information and communication. Realize measurable traffic and urban planning guidelines (for monitoring) What is the definition of a bicycle friendly city? Local made-to-measurement

2 CYCLING IN EUROPE: DIFFERENCES IN CYCLE USE AND POLICY

2.1 Bicycle use in the EU / Influencing factors of cycle use

As a basis for the EU BYPAD-platform project the Transport Research Institute of the University in Hasselt in Belgium made a literature search of existing data and knowledge on bicycle use (modal split data)and traffic safety; and existing knowledge on influencing factors of cycle use.

This literature search showed that comparable data on modal share of cycle use where rare on local level. These modal split data exist on national level, but these figures are also difficult to compare. Different collection methods and other registration years give an indication of the modal share of cycling on European level, but it is clear that there is a need for comparable data in the future.

In BYPAD we could find different modal split data on city level, but also here the sources are really different from each other (other collection method, other years of collecting the data).

To give you the complete overview of existing material. The complete literature search is put in the annexes of this document.

In the next chapters we analyse the new data and the new insight on differences in cycle policy based on the BYPAD-audits which have been implemented in more than 100 cities, towns and regions in 21 European countries.

2.2 Bicycle policy in Europe: which balance between infra and promo measures?

2.2.1 BYPAD-scores and bicycle use

With the BYPAD-experience of working in so many European countries and so many different cities it has become clear that nowadays cycling policy and cycle use is at different levels despite cycle use has started at an almost equal level in the beginning of the 20th century. In all BYPAD-cities the will to realize a modal shift from car to more cycling is there, but BYPAD clearly proved that there are big differences in approaches.

In this chapter we used the scores of 55 BYPAD-cities for which we also found modal split figures. We want to get answers to following questions:

- Is a high BYPAD-score also linked to a high bicycle use?
- Do we see differences between countries concerning the type of measures that get a high score (e.g. Is there more emphasis on infrastructure measures in Nord European cities than in South European cities?)?
- Do we see an evolution in type of cycling measures linked to the BYPAD-score ?(= Is the compilation of cycling measures linked to the level of development of cycling policy?)

Based on the analysis of the BYPAD-scores in 55 cities we see a positive correlation between bicycle use and BYPAD-score, but it isn't strong (+ 0,25). (see figure 9)

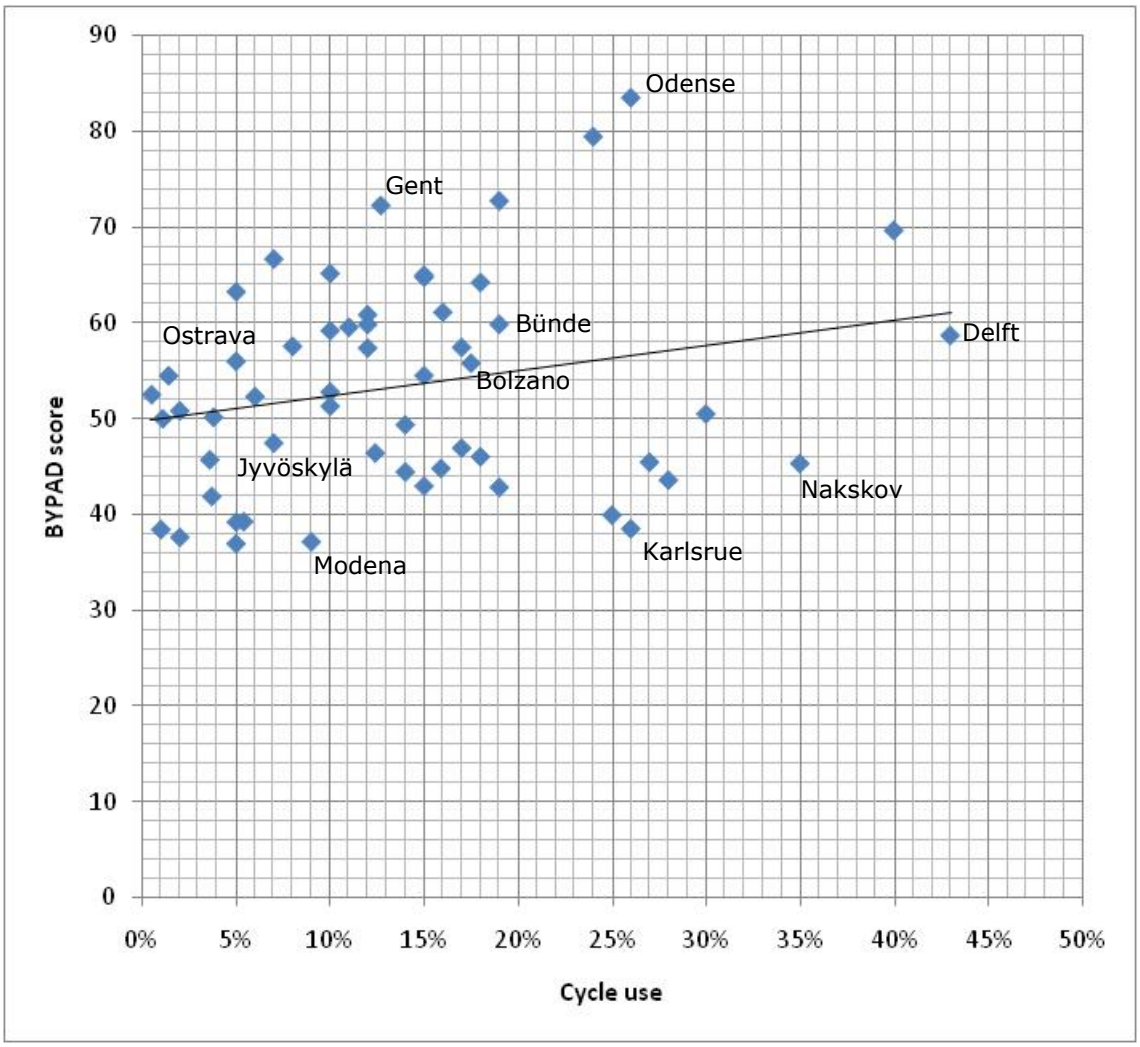
We only used 55 cities of the 119 cities and regions than ones implemented a BYPAD-audit. In these cities the same questionnaire was used which forms a first comparison basis. The list of these cities is in tabel 2.

Table 2: comparable BYPAD-cities

City/Region/town	Bicycle share	City/Region/town	Bicycle share
Delft	43%	Bornem	12%
Münster	40%	Drammen	12%
Nakskov	35%	Oostende	12%
Provincie Fryslan	30%	Feldkirch	11%
Lüneburg	28%	Ceske Budejovice	10%
Waalwijk	27%	Helsinki	10%
Karlsruhe	26%	Olomouc	10%
Odense	26%	Sint Truiden	10%
Eindhoven	25%	Modena	9%
Marl	24%	Pardubice	8%
Bünde	19%	Jyväskylä	7%
Lund	19%	Zürich	7%
Salzburg	19%	Gävle	6%
Oss	18%	Firenze	5,40%
Växjö	18%	Linz	5%
Bolzano	17,50%	Ostrava	5%
Kiel	17%	Tampere	5%
Rostock	17%	Vsetin	5%
Köln	16%	Genève	3,80%
Hyvinkää	15,90%	Southwark	3,70%
Ettlingen	15%	South Dublin County	3,60%
Hillerød	15%	Liverpool	2%
Kortrijk	15%	Plzen	2%
Viborg	15%	Lausanne	1,40%
Bregenz	14%	Brussels	1,10%
Graz	14%	Brussels region	1%
Gent	12,70%	Esch-sur-Alzette	0,50%
Turku	12,40%		

Source: BYPAD-audit reports

Figure 9: Correlation between BYPAD-score and cycle use



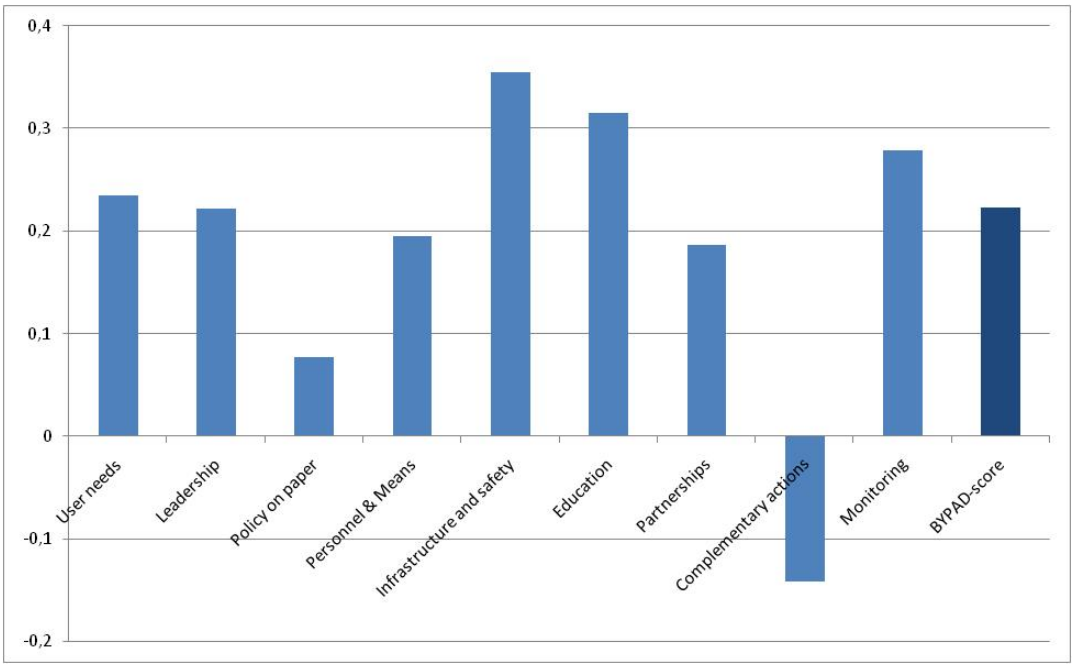
The most important explanation for this rather weak correlation is the influence of the **personal opinion and assessment of the evaluation group together with the auditor**. In every cities the BYPAD-assessment is done in the same structured way but opinions on for instance what is a high quality cycling infrastructure really differ from country to country. For example, the BYPAD-score of the Dutch city of Eindhoven was much lower than the BYPAD-score of the city of Olomouc in the Czech Republic. Although the city of Olomouc is doing a lot of efforts concerning cycling policy everybody knows this city is still far from behind what is done in a normal city in The Netherlands.

These differences in interpretation of what is high quality and what is low quality are cleared out as much as possible through the BYPAD-questionnaire which is giving possible actions that are linked to a certain quality level. Nevertheless this correlation exercise shows that it is impossible to compare cities from different countries but it is interesting to compare cities within one country.

Like explained before BYPAD is also a time shot of the efforts done on cycling policy nowadays. **Effects and results on cycle use, traffic safety always have a delay of several years**. Doing a lot of preparation work now (e.g. recruiting a bicycle officer, fixing higher budgets for cycling policy, designing a cycle network, …) will result in a high BYPAD-score which within some years also results in a higher bicycle use. **There is however always a delay between the BYPAD-score and the increase of bicycle use.**

Also for almost all the BYPAD-modules there is a positive correlation between the module score and bicycle use, but like explained above these positive correlations are never high (see figure 10). A positive correlations means that there is a higher BYPAD-score if there is a higher cycle use. The strongest positive correlation is on the module of infrastructure. This is surely an indication that having a high quality infrastructure has the strongest effect on cycle use. Only for the module of complementary actions, where there is asked what kind of measures the city is taken to curb car use (parking policy) and cycle friendly the spatial planning policy is, there is a negative correlation. For this module all BYPAD-cities and regions also had a very low score, which explains the negative correlation.

Figure 10: Correlation between bicycle use and scores BYPAD-modules



Source: BYPAD-scores of 55 cities – see table 2

2.2.2 Cycle use as indicator for package of cycling measures

Despite the absence of a direct correlation between the actual efforts done on cycling policy and the effects in cycle use or traffic safety it becomes however clear that **the package of necessary and justified cycling measures differs from level of cycle use in a city or region.** For example in a city with a low cycle use it is logical to invest in infrastructure and traffic safety before stimulating and promoting bicycle use. It would even be immoral to promote bicycle use via campaigns or school projects if it is unsafe or uncomfortable to cycle. **Depending on the level of development a city / region has reached the most effective package of cycle measures differs.**

That is also the main reason why the exchange of experience in the BYPAD-network is organized between cities and regions who are on a similar quality level of cycling policy. See also the best practice database on the website www.BYPAD.org

HOWEVER, A BASIC PRINCIPLE OF BYPAD IS THAT THE PACKAGE OF MEASURES TO INCREASE CYCLE USE AND TRAFFIC SAFETY IS ALWAYS A MIX OF INFRASTRUCTURE MEASURES AND SOFT MEASURES (INFORMATION, PROMOTION, ...).

Three categories of improvement packages can be defined:

1. **Starting cycling cities, modal share < 10%:**

   GOAL: MAKE CYCLING POSSIBLE/SAFE/COMFORTABLE

   A basis level of bicycle facilities (cycle lanes, bicycle parking, traffic calming zones, …) should be implemented before a city / region starts stimulating cycle use through campaigns, information, …

   The city should communicate on all the cycle measures they are taken and which advantages cycling has

2. **Climber cycling cities, modal share 10-20%:**

   GOAL: CONVINCING MORE PEOPLE TO USE THE BICYCLE

   In this stage there is still a big potential for shifting from car trips to cycle trips. The city should communicate actively about the advantages of cycling and al kind of promotion initiatives should be started (school, employers, …).

   A continuous improvement of the cycle conditions (comfort, safety) is necessary.

3. **Champion cycling cities, modal share > 20%:**

   GOAL: KEEP PEOPLE CYCLING

   In this stage most of the short distance trips are made by bicycle (or public transport). It is not necessary any more to convince people of the advantages of bicycle use, but the challenge is to keep people on the bike.

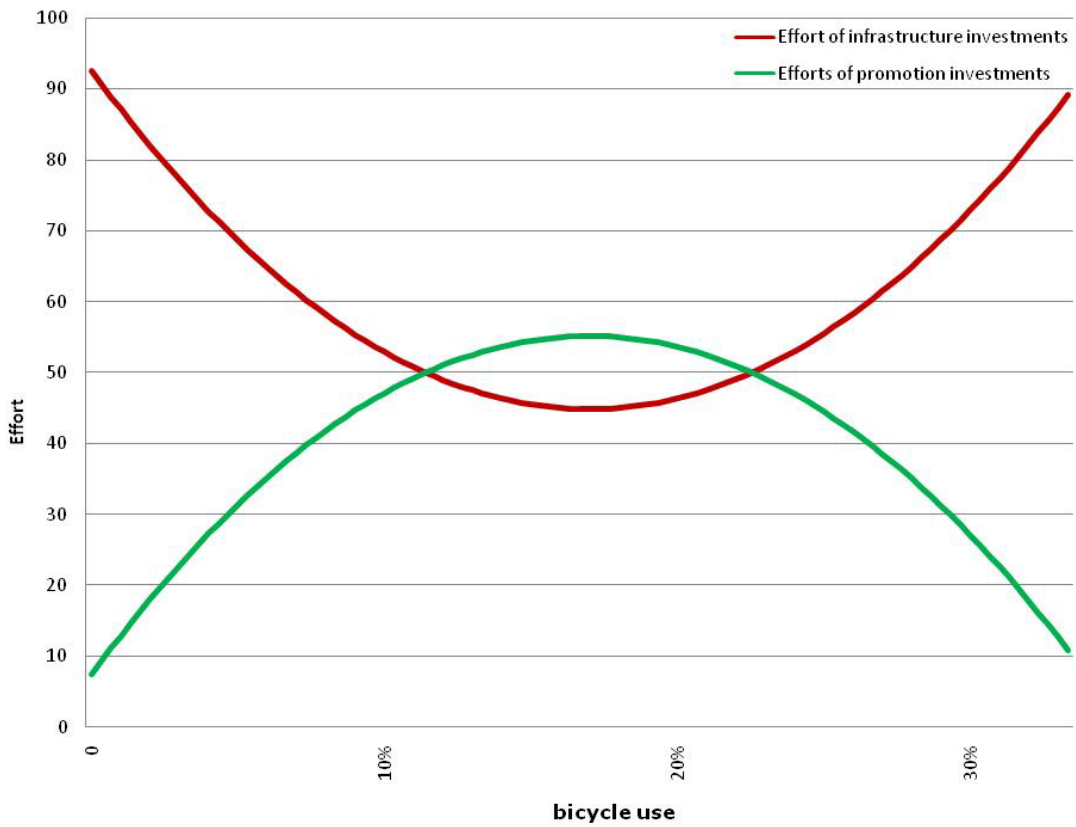
   As the user demands are changing continuously the attention to new investments in cycle comfort, safety is again vital for this stage.

The above mentioned link between level of cycle use and type of package of cycling measures is a hypotheses which is more or less confirmed in BYPAD, but not scientifically proved.

The outcome of the BYPAD quality plan is always a mixture of infrastructure and promotion measures and dependant on the quality level of cycling policy and the level of bicycle use, there is more or less emphasis on infrastructure.

In figure 11 this balance between infrastructure measures and promotion measures is made clear in a scheme. This scheme is only showing the relative balance between hardware and software measures.

Figure 11: balance of infrastructure measures and promotion measures



Champion cities:

When zooming into the results of the BYPAD-cities the above mentioned hypothesis is not clearly proven but we clearly see that cities at the highest level of cycle use (> 20%) still are doing major efforts in investments infrastructure.

For example:

The city of Odense in Denmark has a modal share of 26% of cyclists. Despite this high level over cycle use, the city is investing in bicycle comfort via green waves for cyclists on the major cycle routes, high level bicycle pavements in the city centre, top design and covered bicycle parking places, …

The promotion of cycle use is not explicitly done by informing people on the advantages of bicycle use, but cycling is part of the city marketing. In all possible ways the city communicates about bicycle and all city related events are also linked to bicycle promotion. A perfect example of "useless" measure toward direct improvement of the safety or comfort is the bicycle barometer which is a bicycle counter at an eye catching point in the city which is clearly visible for all passersby. This infrastructure measure is a 100% bicycle promotion action.

Green wave for cyclists in Odense

Bicycle counter - Odense

Climber cities:

Cities that are at a medium level of cycle use (10-20 %) have a focus both on improvement of the bicycle network as on promotion campaigns for different user groups. In these cities the internal organization of the city administration is still changing attitudes towards a complete integration of the importance of the bicycle in all kind of city planning aspects. A cycling officer who is working within the transport department will soon become needless as the whole transport department and also other departments are taken into account cycling measures.

For example:

The city of Gent in Belgium with a modal split of 13% of cyclists is still investing in the realization of a city wide bicycle network. The four major routes are finished but bicycle facilities along a lot of major roads are still lacking. An intensive program of construction and improvement of bicycle lanes has started together with the regional authority.

As there is still a high potential for new cycle trips on the short distances, the city of Gent actively works on cycling to school programs and actively looks for incentives for their employees and employers to stimulate commuters to cycle to work. The continuous attention of cycle measures and cycle promotion in the press is also a conscious choice of Gent to keep cycling in the attention.

Campaign 'Gent Wild of cycling'

Guarded bicycle parking at railway station Gent

Bicycle parking for city staff + 0,15 € /km for cycling to work in Gen

School pooling with basic schools in Gent

Starting cities:

For cities that are at the lowest level of bicycle use (< 10%) it is of course the cheapest way to start with promotion campaigns to stimulate cycling (e.g. cycling to school campaigns, health campaigns, …) but it is not honest or it is even immoral only to stick to promotion campaigns when it is still unsafe an uncomfortable to cycle.

At the lowest level of cycling policy and cycle use it is not the role of the city/region to actively communicate on all the advantages of cycling as long as no comfortable and safe cycling environment has been created. At this quality level it is up to the individual users and the user groups associations to continuously communicate about the use of cycling for your health, for the environment, for the traffic congestion, … These user groups have to make aware the politicians to take real actions in the field of cycling comfort. It is up to the user groups to form a critical mass who has enough influence to force politicians to take actions in the field.

Taking the decision to invest in safe bicycle infrastructure or traffic calming zones in a city with a low bicycle use is the most difficult but only right decision in the whole process of improving the bicycle policy. In too much cities the main focus is 'easily' on promotion and press attention for the bicycle, but on long term it means you won't get at a higher level of cycling policy.

For example:

The Brussels Region in Belgium with a modal split of 2-3 % of cyclists' is already active in communicating on the use and importance of cycling in the city, but only in the last years the region is also taking serious the importance of safe and comfortable infrastructure and of traffic calming zones. Brussels is still a very car oriented city but in the next years it looks very promising to have more and more high quality cycling facilities including bicycle parking. Brussels was also one of the pioneers in Europe to allow cyclists in two directions in one way streets.

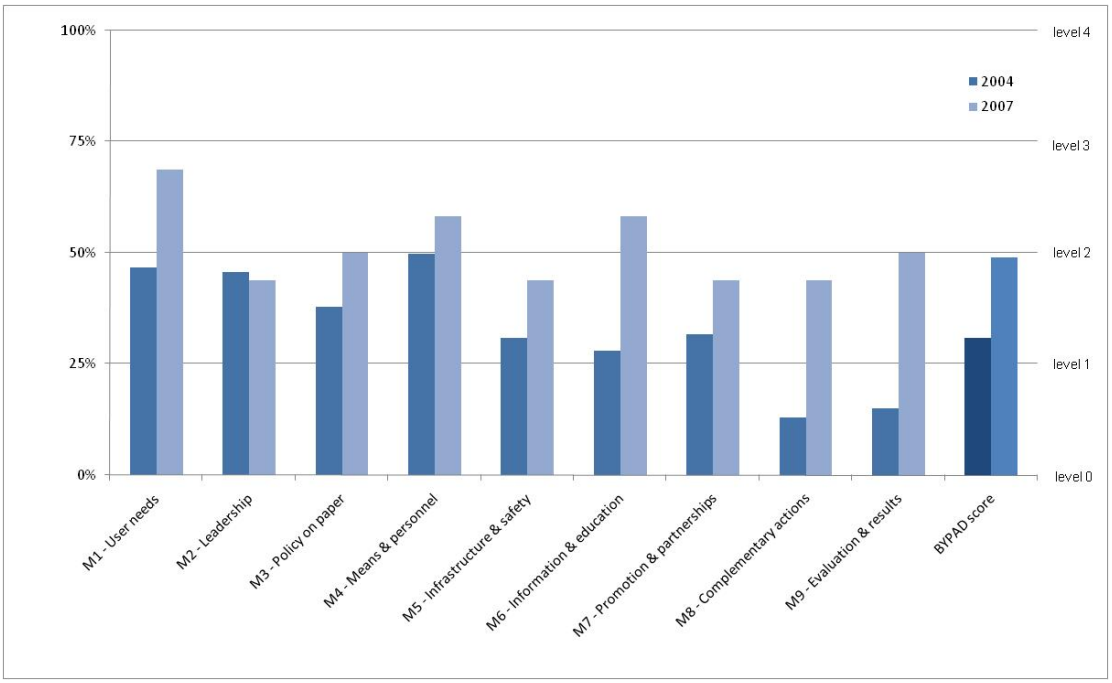
Also at the level of the administration there has been recruited a bicycle officer and presently there are at least 6 people active in planning and implementing cycling policy. Also the co-operation with the user groups is strongly organized via a monthly bicycle commission where all bicycle projects of the region are discussed with the user groups associations.

Actions on communication and promotion are focused at cycling to school programs, a bicycle map and some yearly big events on cycling: Dring-Dring (a week focused on cycling use in Brussels) and Bicycity (a big cycle ride via the highways into Brussels at a car free Sunday in May, with more than 10.000 participants).

To show the world that Brussels is taking cycling seriously the Brussels Region is hosting the international conference Velo-city2009. This conference will be a milestone for Brussels to show the world what has been accomplished and secondly the role of Europe will be emphasized at Velo-city2009 Brussels.

The BYPAD-audit has been implemented twice in the Brussels Region. The evolution how the Brussels Region is making progress in cycling policy is clearly visible in Figure 12

Figure 12: BYPAD-scores in the Brussels Region in 2004 and 2007



Bicycity Brussels

Bicycle training - Brussels

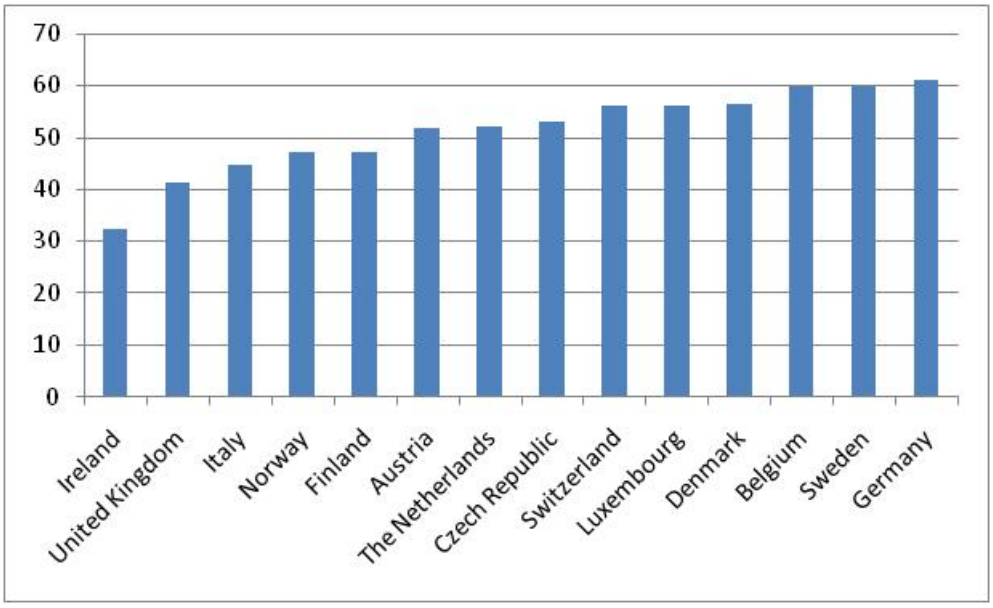
2.2.3 Differences between countries ?

It is possible to describe the differences in cycling policy between the different European countries based on the BYPAD-results? And can countries learn from each other's approach?

These are questions we would like to answer based on the results in the BYPAD-cities. It is however important to know that such a comparison is dangerous as we make averages of BYPAD-scores per country based on the BYPAD-results in the cities of that country. **As not all cities in a country have been audited and as in some countries more cities have been audited this comparison can't be considered as a state of the art of differences between countries.**

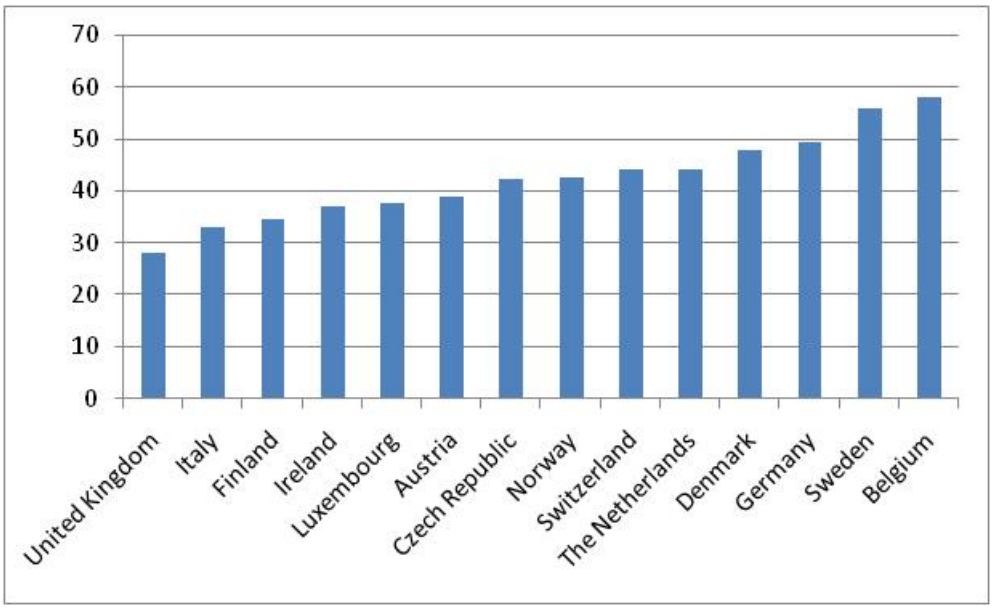
For the information we give the table for the *module infrastructure & safety* and for the *module information & education*. As these tables are based on results in very different cities and based on the qualitative evaluation process by different auditors it is however not possible to draw conclusions on differences between countries. Everybody would expect The Netherlands on top of the module infrastructure & safety, but like already explained before the evaluation groups in The Netherlands were much more critical than for instance in the Czech Republic.

Figure 13: BYPAD-scores per country for the module infrastructure & safety



Source: BYPAD-scores of 55 cities – see annex

Figure 14: BYPAD-scores per country for the module information & education



Source: BYPAD-scores of 55 cities – see annex

2.2.4 Self-evaluation tool + learning from each other

As BYPAD has been developed as a Total Quality Management tool, the first goal of BYPAD is to be a self-evaluation tool which is detecting the weak and strong points of a city's cycling policy. At first place it is interesting to see if a city is making progress in cycling policy and why it is making progress.

This analysis is made by the evaluation group who is also supported by an external expert in cycling policy, the BYPAD-auditor. It is this quality management approach which is the strong added value of BYPAD. A city really gets an evaluation and improvement report based on opinions and visions of local actors and advices by the knowledge in other (BYPAD)cities which is implemented via the BYPAD-auditor.

As cities always feel some kind of competition element in doing this audit they always want to know how good they score compared to other cities. Like already explained above a comparison between cities of different countries is like comparing apples with lemons. **The only basis of comparison which is completely correct is comparing your BYPAD-scores with the former scores in your city and this way using BYPAD as a self-evaluation tool.**

A second basis of comparison which is still acceptable is comparing cities in one country. The audits where mostly done by the same auditor and the cycling culture is the same. In the tables below you find for example the comparison of the Czech, Belgian, Dutch and German cities. For those who know the cycling context in these countries, the hierarchy in quality of cycling policy looks correct. Based on these scores an extra motivation to become the best within one country is there.

Figure 15: BYPAD-scores in German cities

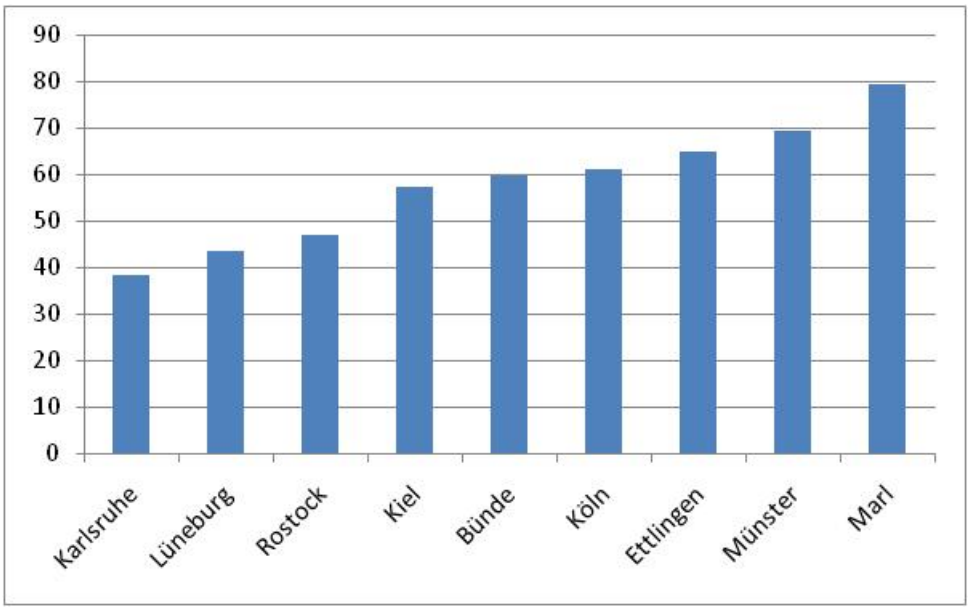


Figure 16: BYPAD-scores in Czech cities

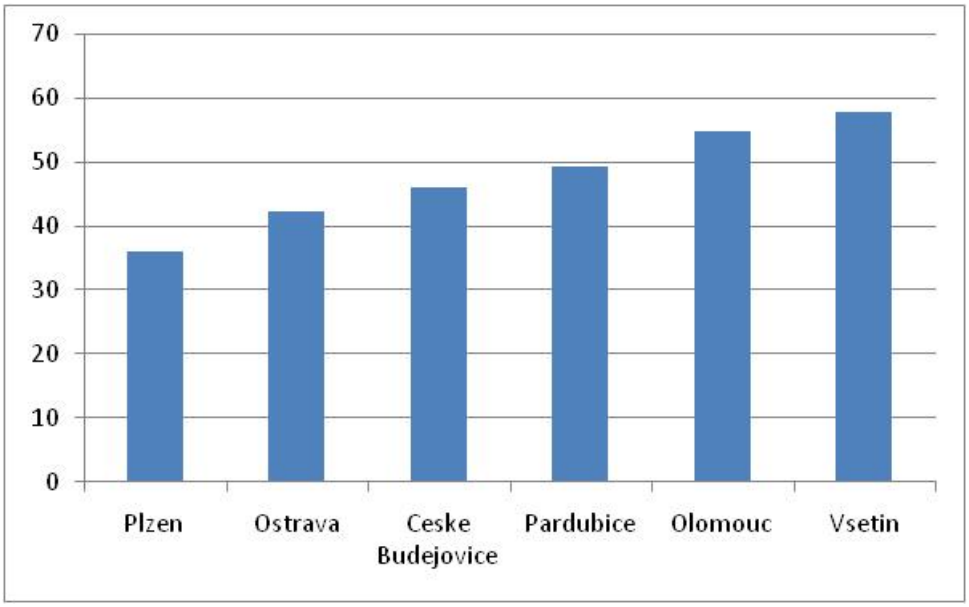


Figure 17: BYPAD-scores in Belgian cities

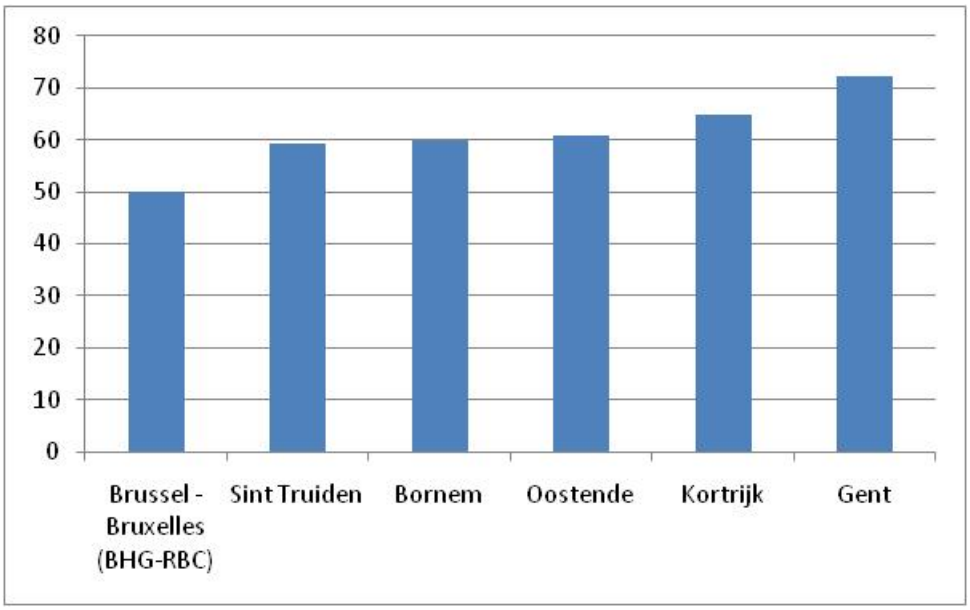
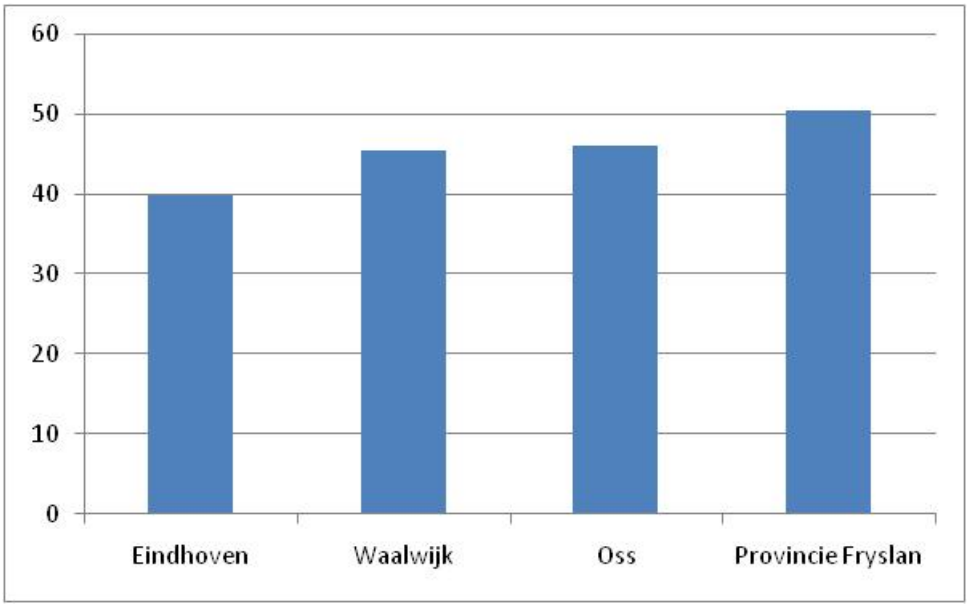


Figure 18: BYPAD-scores in Dutch cities



Of course a main goal of the whole BYPAD-network is to learn from other cities or regions. The exchange of experiences between auditors together and between cities / regions is an important aspect for improving its own cycling policy. The BYPAD-trainings, BYPAD-seminars, the BYPAD-website and the BYPAD-newsletters are the basis of this exchange of experience.

3 BYPAD: WHAT HAS BEEN ACHIEVED, WHAT NOT (YET)

By introducing the aspect of Total Quality Management in cycling policy, BYPAD wanted to recognise cycling policy as a serious and vital part of a city's or region's transport policy. BYPAD started as a research project financed by the European commission to develop a Total Quality Management Tool for cycling policy. During the stage of this research project nobody was sure that such a Total Quality Management Tool could make a difference for cycling policy in European cities. However at the end of the first BYPAD-project in 2001 all the partners were convinced that a strong instrument had been made with a lot of potential to **define a European quality standard for cycling policy.**

With the BYPAD-platform, as the final EU-funded project to support the development and dissemination of the cycle audit tool BYPAD, there has been has created **a pan-European network of around 100 cities, towns and regions in 21 European countries who actively invest in improving the quality of their cycling policy**. Via BYPAD **58 certified auditors** were trained to supervise the audit process and the city networks POLIS, Energie-Cité and ICLEI were involved in dissemination activities.

Through BYPAD both a serious quality improvement tool and a strong network of (cycling)cities/regions and cycling experts raised and the relevance of having an integrated cycling policy in cities/regions was proven. In the mean while **BYPAD has become the quality standard for cycling policy**. Different national and regional cycling strategies (e.g. Austria, Germany, Czech Republic, …) are advising to use BYPAD as a quality management tool to improve the local cycling policy.

After these almost nine years of European support, BYPAD has become mature enough to stand on its own and to become a platform which wants to improve the quality of cycling policies and by this increasing cycle use and improving cycle safety by:

1. Implementing cycle audits in cities and regions
2. Exchanging cycling knowledge and expertise among members of the BYPAD-network (Auditors, cities, towns and regions).

3.1 Results

Creation of an expert network of 58 BYPAD-auditors

Via an intensive training programme a European wide network of 58 certified auditors has been created and this network of auditors has built a good reputation of being a group of experts in cycling policy. An important precondition of being a certified BYPAD-auditor is the 'lifelong' learning in the BYPAD-network. For staying a certified auditor you have to follow a training at least every two year on new elements in cycling policy and experiences with BYPAD.

Introduction of total quality management in cycling policy

BYPAD is a strong instrument with a good name recognition all over Europe. Via BYPAD the aspect of **Total Quality Management in cycling policy has been introduced** and it is now also recognized as an efficient method to improve local and regional cycling policies. As BYPAD initially is a self-evaluation tool to help improve the cycling policy of a city, region or town there has been given a lot of attention to the comparing of scores and results by these authorities. As the BYPAD-method is basically a qualitative approach and as the audits are also done by different auditors with other backgrounds it is however dangerous to directly compare the BYPAD-scores between different countries with each other. Although the BYPAD-partners continuously underlined that BYPAD is no beauty contest, the BYPAD-results also initiated a level of competition between cities, towns and regions.

A European quality standard for cycling policy

Cities, towns and regions that are willing to improve their cycling policy are also looking for standards, inspiration, effective policy measures for stimulating cycle use. Through BYPAD these authorities got a tailor made package of measures which are necessary to implement. This tailor made package is however the result of a standardized method which gives the European standard for the different quality levels you could reach in cycling policy. Based on BYPAD authorities can see which quality level or standard they already have reached and to which quality level or standard they should go for.

Monitoring tool for cycling policy

As BYPAD is at first place a self-evaluation instrument which helps to prepare an action programme for improving a city's or region's cycling policy it can easily be used as a monitoring tool to see what is the evolution of the city's cycling policy. The BYPAD-scores for each module clearly indicate the actual quality level and by repeating the same exercise every three to four years the progress in cycling policy can be detected.

Knowledge centre for (starting) cycling cities/regions

The BYPAD-network is covering the state of the art knowledge on possible measures and strategies to stimulate and facilitate cycle use. Especially new member states and cities which have a lack of expertise or personnel to start up clear cycle measures could rely on the support of the BYPAD-network to implement cycle measures.

3.2 Challenges

European award for the best and most promising cycle cities

Like already explained BYPAD is no tool to compare cities, regions from different countries with each other. Nevertheless the BYPAD where cause of some kind of competition elements amongst the BYPAD-cities as everybody wants to be the best. This competition element could form a basis for an acceleration of investments in cycling policy and therefore it would be a strong catalyst to deliver a European Award for the best cycling cities and most promising cycling cities in Europe. By nominating different cities it is possible to put not only the cities with the highest modal share of cycling in the picture, but also the climber cities and starting cities that in the near future will succeed in changing travel behavior drastically because of their efforts to invest in cycle measures.

BYPAD-foundation

To avoid that BYPAD will become the next EU-supported project which ends when the EU-support ends there should be given a continuation to the BYPAD-activities on permanent basis and not on project basis. A legal body (The BYPAD-foundation) can/will be formed for giving this continuation. The BYPAD-foundation will:

- support the implementation of BYPAD-audits
- organize the exchange of cycle knowledge through seminars, conferences, excursions
- communicate about BYPAD via a newsletter, website
- improve and update the BYPAD-tool
- train new and existing BYPAD-auditors
- hand over the BYPAD-certificates to the BYPAD cities, towns, regions

The financial basis of this foundation will come from membership fees of BYPAD-auditors and BYPAD cities, towns, regions.

To avoid that a new city-network organization will be created, an active co-operation with existing city-networks is necessary (POLIS, ICLEI, Energy-Cités, Eurocities, …)

By having the European Cyclists' Federation as one of the founding members of this foundation a clear link to the users is created.

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ANNEXES

- Annex I: Literature search bicycle use and influencing factors in Europe

- Annex II: city portraits BYPAD-cities

Annex I:

Literature search bicycle use and influencing factors in Europe.

Van Hout Kurt, July 2008

EIE-programme 05/016 Intelligent Energy Europe

BYPAD BICYCLE POLICY AUDIT

Supported by Intelligent Energy Europe

Content

1 BENEFITS OF CYCLING

The European Union promotes sustainable transportation (@@white paper and green paper). Sustainable development in general constitutes of 3 pillars: economic development, social development and ecological development. For transportation issues these pillars can be translated into an improved accessibility and welfare (economic development), social equity, health and safety (social development) and an efficient use of natural resources and prevention of pollution (ecological development) (@@Mobility plan Flanders). In each of these domains an increased bicycle use can contribute to reaching the goals.

Mobility is a basic right for everyone. Mobility however is often equated with driving a car. When the right of mobility is confused with the right to use a car no matter what, problems will arise. Cars are partly responsible for the misuse of urban space, consume enormous resources and are a burden on the environment (Dekoster & Schollaert, 1999). Pollution constitutes not only a threat to our historic heritage but is also and above all a health hazard through both atmospheric pollution and noise. A reduction in car use has become necessary if mobility in cars is to be maintained. Cycling is hereby one of the alternatives. An increased bicycle use has many advantages, both for the individual, society and the (urban) environment. Some of these advantages come from cycling itself, other arise when decreasing automobile use in favor of bicycle use.

1.1 Ecological development

In this first section we will discuss the tremendous benefits of cycling instead of car driving for a sustainable ecological development. Cycling is clean and uses the scarce space in a very efficient manner, thereby putting a minimal strain on the (urban) environment.

1.1.1 Low polluting

Cycling is crucial to improve the livability of our cities and towns. Their impact on the environment is much smaller compared to that of cars. The bicycle emits nothing into the atmosphere and is virtually silent. It poses very little threat to the health and safety of other road users, or to the integrity of the environment (Tomlinson, 2003).

Cycling is the most energy efficient way of propulsion (@@Cycling science). A cyclist only needs about 1/5th of the energy needed by a pedestrian to travel over 1 km. And although it doesn't take the car driver himself much effort to cover that distance, the car needs @@times more energy to bring the driver (and other occupants, on average maybe 75 kg per person) there, mainly because, besides the passengers it has to move a dead weight of (often) well over 1 ton over the same distance. Furthermore the energy needed for this task comes from gas that has to be imported from oil producing regions. Cyclists can therefore help to reduce our dependency on fossil fuels.

Because bicycles don't use fossil fuels but rely on muscle power they produce no exhaust fumes (apart from some extra CO_2 due to a somewhat higher respiration volume that is). As such they don't contribute to problems with air pollution, global warming, acidification, harmful smog, fine particles, blackening monuments, etc. Several studies indicate that CO_2 emissions by traffic can be reduced by 3-4% by substituting short car trips by bicycle trips @@ref?@@).

In times of increased smog levels (caused by, a.o., motorized traffic), physical activity (including cycling) is often suggested to be avoided. It's obvious that it is less healthy to cycle in polluted air than in clean air. But should one not cycle because of the pollution? If there is a cleaner alternative the answer is yes. But several studies (Rank et al, 2001; van Wijnen et al, 1995; @@villes d'enfants, villes d'avenir; @@) show that car occupants

are submitted to significantly higher indoor pollutant concentrations, since cyclists mostly operate on the side of the vehicle streams where concentrations are lower. Because of the higher respiration rate (2,3 times greater air intake) the total uptake of pollutants as CO, benzene, toluene and xylenes sometimes approach that of car drivers, but usually doesn't exceed this intake (depending on relative speed and the relative volume of air taken in). Air quality varies a lot depending on the location. Air quality is worse near busy arterials. Peak concentrations occur when heavy vehicles are passing by. By providing cyclists with separate cycle routes apart from busy arterials, the intake of pollutants by cyclists can be further reduced.

It should be noted that children transported on the back of a bicycle will inhale a lower concentration of pollutants than they would inside a car, because they, as passive passengers, exhale the same amount of air in the two situations. As a consequence it is healthier for children to be transported by bicycle than by car.

Traffic noise is another major nuisance to a lot of people. It causes problems such as insomnia, stress and mental health disorders. According to doctor Johannes Spatz traffic noise is considered to be responsible for 3% of all deaths from heart attacks (Buis & Wittink, 2000). By reducing car traffic and lowering of speed the noise levels in cities will go down thus creating a more livable city environment.

1.1.2 Space efficient

Where car emissions in future probably will further be reduced due to technological improvements, car manufacturers will never be able to solve the problem of the excessive claim by driving and parked cars for the scarce space in cities. By reducing the space available for car traffic city centers can again become the attractive places they were (and many are today) where people can meet and local businesses flourish.

Private cars are by far less space efficient than other modes of transport in town, even without taking into account the space they take up for parking (Dekoster & Schollaert, 1999). During a 1-hour period 2000 persons using private cars can cross a 3,5 m wide space in an urban environment. With busses the number of people increases to 9000. In the same time period 14000 cyclists can cross the same space and 19000 pedestrians. Via the tramway 22000 can cross the same space. According to official guidelines (of the Danish Road Directorate) a 2 m wide one-way cycle way has a capacity of 2000 cyclists, but is actually able to unroll 5200 cyclists per hour. A road lane with a vehicle capacity of 2000-2200 cars per hour will have a typical width of 3,5-4 m. Special lanes for cyclists are therefore certainly space efficient. When being integrated into urban traffic the extra needs for space is virtually zero (ECF, 1993). This is mainly due to the flexibility of the bicycle as a means of transportation. Cyclists don't need much space to be able to progress in traffic, even when the roads are clogged with car traffic. As such when cycling is promoted more space is left for those cars that are really necessary in city centers. So it's clear that far more cyclists can be moved over the same amount of road space compared to car occupants.

The space consumption of a parked bicycle was calculated to be only 8% of the space consumption of a car (Wittink (ed), 2001; Héran, 2002). On one car park space 12 bicycles (and thus consumers) can easily be parked. Driving cars even take up until 30 times more road space than bicyclists.

Cars have an important impact on space in cities. The direct uptake of space by cars was mentioned above. In the past decades cars have also shaped cities to their benefit. Cities have expanded, because of auto-accessibility. Stores, hospitals, schools have moved from the city centers to the periphery, thereby increasing distances and making it less appealing for cyclists and thus inducing more car traffic and less opportunities for car-less people (Peeters, 2000). By choosing for car traffic the traditional scale of settlements will be destroyed and immobility by progressive traffic jams will be the result (Monheim, 2003). A fixation with automobiles destroys urbanity and paves the way for purely auto-fixated megastructures.

The car even decided on the architecture of individual buildings. Instead of windows on the street side, garage doors now link the street to the house (Peeters, 2000). Cars get their place right in the house of its owners. The domestication of the holy cow must be complete. At the same time activities have moved away from the street side decreasing social control.

1.2 Social development

The second pillar of sustainable transport in which cycling can play a very important role is social development. Health, safety and social equity will all benefit from more cycling and less car driving.

1.2.1 Health

More than 30% of European adults are insufficiently physically active (WHO, 2002). A sedentary life style gives rise to coronary heart diseases, strokes, obesity and type II diabetes. In most European countries e.g. the prevalence of obesity is estimated to have increased by 10-40% from the late 1980s to the late 1990s. Physical inactivity is the second most important risk factor for poor health, after tobacco smoking, in industrialized countries. Physical activity is probable one of public health's "best buys", having the following benefits (WHO, 2002):

- a 50% reduction in the risk of developing coronary heart disease, non-insulin-dependent diabetes and obesity;
- a 30% reduction in the risk of developing hypertension;
- a decline in blood pressure among hypertensive people;
- helping to maintain bone mass and thus protecting against osteoporosis;
- improving balance, coordination, mobility, strength and endurance;
- increasing self-esteem, reducing levels of mild to moderate hypertension and promoting overall psychological wellbeing.

Participation in regular, moderate physical activity can delay functional decline. From age 50 onwards, the benefits of regular physical activity can be most relevant in avoiding, minimizing and/or reversing many of the physical, mental and social hazards that often accompany advancing age (WHO, 2002). Cycling is an ideal activity to fight the diseases mentioned. By improving leg muscle strength, cycling and walking contribute also to reducing the risk from falls among older people. Several articles and editorials have explicitly advocated more walking and cycling for daily travel as the most affordable, feasible and dependable way for people to get the additional exercise they need (Pucher & Dijkstra, 2003).

Several studies report that modest physical activity leads to a longer and healthier life. Even 30 minutes per day of physical activities of medium intensity provide such benefits. A person who cycles 6 hours each week reduces his chances of an early death by coronary heart disease more than 4 times compared to his chances of an early death by a traffic accident (Kifer, nd). Cycling strengthens the heart, lungs and respiratory system and cures depression. Fats are burnt while cycling inducing a weight control and stress flows away. A Danish study (Andersen, 2000 as cited in van Loon & Broer, 2006) showed that people that didn't cycle to work had a 40% higher mortality risk compared to those who did. A Norwegian study (Saelensminde, 2002 as cited in van Loon & Broer, 2006) revealed that investment in cycle use are earned back by savings in public health. Gains in life years through healthier life styles exceeds loss of life years through traffic accidents 20 to 1 (Hillman, @@). A Danish study leads to analogous results (ratio about 1 to 10). In PROMISING the health aspect is estimated to be 5 to 10 times the safety aspect.

Apart from the direct benefits of physical activity, replacing some motorized trips by walking and cycling brings additional and important health benefits by reducing air pollution and noise and contributing to improve the quality of urban life (WHO, 2002). By emitting exhaust gasses and producing high noise levels, cars are responsible for creating unhealthy conditions. Traffic-related air pollution in Berlin is even considered to cause twice as many deaths as traffic accidents (Buis & Wittink, 2000). 3% of all cancer-related deaths can be attributed to motorized traffic. By reducing car traffic and promoting cycling a better air quality will be obtained. Because of this better air quality there will be less health problems.

1.2.2 Safety

Safety is of particular concern in cycling. Cycling is almost always perceived to be the most dangerous means of transportation regardless of the mode actually used (Noland, 1995). In this section we will give an overview of the actual risks faced by cyclists. In table @@ an overview is given of cycling risk in 14 EU countries. The table contains both exposure and risk measures.

	Distance per person per year [km]	Total cycling distance [@@bio km]	Population [mio]	Killed cyclists (2002)	Killed cyclists per mio inhabitants	Killed cyclists per @@bio km
Belgium	325	3,30	10,3	108	10,4	32,7
Denmark	893	4,70	5,2	52	9,7	11,1
Germany	287	23,50	82,5	583	7,1	24,8
Spain	20	0,80	42,2	96	2,3	120,0
France	75	4,40	59,6	223	3,7	50,7
Ireland	181	0,70	4,0	18	4,5	25,7
Italy	157	9,00	57,3	314	5,5	34,9
Luxembourg	39	0,02	0,4	-	-	-
Netherlands	853	13,30	16,2	169	10,4	12,7
Austria	143	1,20	19,9	80	9,9	66,7
Portugal	30	0,30	10,5	58	5,5	193,3
Finland	254	1,30	5,2	53	10,2	40,8
Sweden	271	2,40	8,9	37	4,1	15,4
United Kingdom	76	4,50	59,6	26	2,2	29,6
TOTAL	186	69,60				

Table 1: Cycling risk and exposure in the EU

Source: Van Hout (2007) and IRTAD (www.bast.de, consulted on 3/11/05)

We find the highest number of killed cyclists in Germany, the highest risk per capita in the Netherlands and Belgium. The highest risk to get killed as a cyclist per distance traveled is found in Portugal and Spain. The first measure (number of killed cyclists) does not take into account the number of inhabitants nor the amount of cycling. The second measure accounts for population, but still doesn't account for the amount they cycle. The third measure takes also into account the amount of cycling that is done in a particular country. We find that in general countries where people cycle a lot, the risk of getting killed in traffic as a cyclist is lowest (fig. @@). Countries with little cycling have the highest accident risks. Jacobsen (2003) called this (common) phenomenon 'safety in numbers'. The more prevalent a phenomenon is (in this case: the more people cycle) the less unsafe it becomes. A general trend of decreasing risk with increasing exposure is found in several studies (Jacobsen, 2003; Van Hout et al, 2005; Leden et al, 2000; Ekman, 1996; Busi, 1998; Jonsson, 2005).

@@insert fig (Van Hout (2007), p. 29)

Several studies compare the risks cyclists face with the risks faced by car occupants (@@ref@@). When risks are calculated as the number of victims per kilometer traveled, the accident risk of cyclists is usually significantly higher then that of car occupants. There are two main explanations to this. Firstly cyclists are far more vulnerable than car occupants. Secondly cyclist trips are shorter. Therefore they are more likely to be found in built up areas where more conflicts occur. When compensated for travel on safe highways (which is prohibited for cyclists) the difference between risk for cyclists and risk for car occupants diminishes or even disappears (@@ref@@).

How comes then that cycling risks are estimated far worse than risks faced as a car driver? When risks are small (and the risk of getting injured in a traffic accident is small, no matter which means of transportation) people tend to base their judgment on the possible outcome of the accident. By incorporating both perceived accident probability and perceived severity, Noland (1995) found that perceived probability was not a significant predictor for cycle use, while the perceived severity is. De Blaeij and van Vuuren () state that most people simply lack intuition to estimate very small probabilities in an adequate fashion. With small probabilities individuals base their decisions on the possible outcomes rather than on the probabilities involved. They also refer to a study by Liu and Hsieh (1995) who concluded that individuals will overestimate the risks of highly publicized events. So telling all the time how dangerous cycling is will increase the perceived risk.

Another way of looking to injury risk is the risk someone poses to other road users. When the risk of accident involvement (no matter the outcome) is studied, we find that car drivers are, per km driven, more likely to be involved in a traffic accident than cyclists (Van Hout, 2007). In accidents involving cars and cyclists, it will (almost) always be the cyclist who gets hurt. So it's safe to conclude that cycling is somewhat unsafe (risk of getting injured), bicycles as such pose little threat on others.

@@Wardlaw resp. Krag nog invoegen@@

1.2.3 Social equity

Not everyone owns a car or is allowed to drive it. 21% of Europeans are children under 18 who are unable to drive a car (because of the minimum driving age). Nevertheless everybody has the right of mobility, of participating in outdoor activities. When space is built to accommodate cars, this right is under pressure. Distances increase and walking or cycling are no viable options anymore. In that case the car-less are trapped at home (because public transportation often can't provide a sufficient solution either), or at least dependent (and a burden?) on others (with a car). Less children are nowadays allowed to go to school in an independent way (in the UK 1 of 9 students travels to school

independently compared to 1 of 5 only 10 years earlier (@@villes d'enfants, villes d'avenir@@). A study on the York school youth reveals that 34% of them is being driven by car to school while only 15% likes being driven to school. On the other hand 40% would like to ride his/her bike to school but only 3% does. Limits on children's mobility are however critical for the development of children's spatial awareness and spatial activity, and affect children's social and physical development (Fotel & Thomsen, 2004). Even when distances can be covered by bicycle, the car traffic is often perceived causing to much danger, to dangerous to risk cycling in it and thus limiting choice of travel. A system that favors the use of cars over other more-affordable means of travel increases the disparities between rich and poor (Tomlinson, 2003).

The use of cars is also expensive. In several studies a clear relationship is found between car possession and household income. The bicycle is an inexpensive means of transportation well within the (financial) reach of almost everyone. As such the bicycle makes a wider range of destinations possible for more people. As a main transportation mode it should be able to compete with cars for (relative) short distances. In combination with public transportation it can even take on the competition with the car over large distances. The bicycle can hereby increase the catchment area for public transportation while the public transportation covers the largest part of the journey. By promoting this beneficial partnership car use can be further reduced.

1.3 Economic development

Cyclists are often overlooked when it comes to economic development. Cars are perceived to be the drivers of economic growth. Nevertheless bicycling can contribute significantly to a better accessibility of city centers and lead to substantial money savings, both for individuals and society. Especially for local shop keepers cyclists are of great value.

1.3.1 Accessibility

The important thing about accessibility is that people can get to a particular location in a short time (Buis & Wittink, 2000). However, more and more cities are experiencing that, despite the ever faster means of transport, the average speed of transport is decreasing and traveling time is increasing. This is the result of congestion due to lack of space. This lack of space is mainly due to the inefficient use of space by the car (see also section 2.1.2). An increasing share of the bicycle as an alternative for short car trips creates more space on the roads thereby also creating more space for vehicles that are useful in the cities. Because workers and goods suppliers are less stuck in congested traffic substantial gains for industry can be expected.

When motorized vehicular demand volumes on our roadways approach or exceed capacity, every additional one car adds to the travel time and delay for all other cars in the system (Aultman-Hall, n.d.). Above capacity, this marginal increase in travel time for each additional car is significantly more than at volumes below system capacity. Eliminating those marginal car trips (e.g. by replacing them by cycling trips), which push the system over capacity offers travel time benefits to all users. Therefore even modest increases in bicycle trips and reductions in car trips can cause relatively large improvements of travel times.

The bicycle is a quick means of transport in urban areas, often the quickest mode possible (ECF, 1993). The low space requirements for parking make a short distance possible between parking and origin or destination, contributing to a low overall time consumption. Cyclists often turn out to be winners in competitions (who will go from A to B in the shortest time?) between pedestrians, cyclists, public transport users and car drivers in urban drivers. Especially on tours with multiple stops cyclist have a large advantage over car drivers and public transport users. Even when driving speeds may

(sometimes) be lower this is in urban areas by far compensated by decreased waiting times and searching time for a parking space.

While the European project WALCYNG found that time is an argument for not cycling or walking, another project 'ADONIS' found that the main reason for cycling in Amsterdam and Copenhagen is that it is quick (Wittink, 2001). WALCYNG points out that until people have actually experienced it, they are unlikely to be aware of how fast cycling can be.

Time savings can also occur in another way. As stated a daily cycling trip is an easy and convenient way to integrate physical activities into an urban life style. By cycling time can be saved because you don't need to go to the fitness to keep in shape. Parents (usually moms) don't need to take their children everywhere (by car). They can fill the spare time to fulfill more useful needs. Time is gained in still another way. As discussed before cyclists just tend to live longer. In the additional life years a lot of interesting activities can be undertaken especially because cyclists also have healthier lives.

1.3.2 Money savings

Bicycles are an inexpensive means of transportation with low cost to purchase and no need for fuel. Furthermore there are usually no parking fees needed for bicycles. Therefore a bicycle is affordable for many. A downside of this fact is that a bicycle is regularly seen as something of low status, as something cheap and by far inferior to cars. For each traveled kilometer, travel costs for the bicycle are lower than any other means of transport, with the exception of walking. Travel budgets can therefore be reduced considerably by cycling. By increasing bicycle use the need for a second car may also disappear, again leading to considerable savings.

Not only the individual benefits from reduced travel budgets, society as a whole benefits as well. Investments in bicycle infrastructure and maintenance are much cheaper than investments in (extension of) car infrastructure. Considerable savings can be made when investment in bicycle facilities make expansion of the car infrastructure unnecessary (Buis & Wittink, 2000). Bicycles cause much less wear and tear than motor vehicles. On the other hand, bicycle infrastructure should be repaired more frequently after suffering just limited damages, because cyclists are more vulnerable than motorists to bumps and cracks in the road surface. Bicyclists deserve the highest quality. The construction costs of parking space for a bicycle only amounts also to approximately 5% of the cost of a parking space for a car.

Significant savings can also be made in public health and environmental policies. In one US study costs associated with inactivity were between 24,3 and 37,2 billion USD (2,4 to 3,7% of total health care costs) (WHO, 2002). A Swiss study estimated that insufficient levels of physical activity cause 1,4 million cases of disease and 2000 deaths and cost about 2,4 billion Swiss franks per year (WHO, 2002). Saelensminde (2004) performed a cost-benefit analysis of walking and cycling track investments in 2 Norwegian cities. He took into account insecurity, health effects and external costs of motorized traffic. He concluded that the benefits of investments in cycle networks are estimated to be at least 4-5 times the costs. Such investments are thus more beneficial to society than other transport investments. Other studies confirm the net benefits of the development of cycle networks (Wittink, 2001).

The health and environmental costs of transport in the EU countries, Switzerland and Norway amounted to about 7% of the gross domestic product in 2000 (ECF, 2004). When the costs of congestion are added, the total external costs are 10%. The main categories are climate change (30%), damage to health caused by traffic-generated air pollution (27%) and the external costs of accidents involving lorries and cars (24%). 83% of the health and environmental costs of transport are caused by road transport. The contribution of cycling is negligible.

Employers also have a lot to gain when their employees cycle more often. In North America various assessments of the benefits of a physically active labor force have been carried out (Ege & Krag, nd). Not only the number of days off work due to illness seem to be less for the physically active employees, their ability to take complex decisions and general productivity is also better than those who are physically inactive. Gains for the employer have been assessed to 3-4000 euro per physically active employee per year. WHO carefully suggests the improved productivity for physically active employees to be in the range 2-52%.

1.3.3 Economic value

Cycling does not only provide financial savings for the individual and society. Cycling and cyclists have also a significant economic value in itself. Cyclists are especially beneficial for local shop keepers. And opposed to popular belief a significant decrease in the number of car trips does not have to mean a decrease in economic activity.

A Dutch survey held in the city of Breda (Christiaens, 2000 as cited in Héran, 2003) showed that car drivers spend more during each visit compared to a cyclist. But cyclists are more loyal, they return more often. So, on a weekly basis, cyclists spend more compared to the car drivers. A survey conducted in the Brussels Capital Region confirms these findings as does a study in the city center of Utrecht (Buis & Wittink, 2000). From a Munster example (@@Cycling: the way ahead for towns and cities) cyclists visited shops 11 times a month compared to 7 times per month for car drivers. A study in Grenoble (by Fubicy) reveals that only 4% of shopping trips involves a total amount of goods exceeding 10 kg, a quantity than can be easily transported by bicycle.

Nevertheless shop keepers overestimate the share of people shopping by car. In Nantes e.g. the local shop keepers estimated the share of customers coming by car on 70% while in reality 70% of the customers came by foot (Viennet, 1999 as cited by Héran, 2003). In Utrecht 26% of the customers came shopping by bike, compared to the 17% that came by car (Buis & Wittink, 2000).

Maybe surprising are the results of a survey among shopkeepers in the Dutch cities Utrecht and Enschede. More shopkeepers found the accessibility by foot and bicycle more important than the accessibility by car (Buis & Wittink, 2000).

Promoting shopping by bike is therefore in the same time promoting local businesses. Bicycles (and pedestrians) bring back the activities to the city centers. In Ghent the city center was made car free at the end of the nineties. The share of vacant shop locations has dropped, the activities in all sectors have increased (+15% for catering industry). In Strasbourg 30% more visitors to the shops in the city center are counted after closing it for through traffic. The same was noticed in Utrecht (Buis & Wittink, 2000). Less cars and more cyclists and pedestrians improve the quality of the environment and people are attracted to more appealing centers. They also tend to spend more time in such surroundings.

As for the industry as a whole researchers in Germany have calculated the effect of a different means of transport, which is less harmful to the environment on the number of jobs (Buis & Wittink, 2000). In the scenario with a significant decrease in car trips (53% to 42%) while the share of bicycle, walking and public transport increase, they find a loss of 130.000 jobs, mainly in the car industry, but 370.000 new jobs are created, mainly in public transport and the bicycle sector.

1.4 Motives for cycling

We might almost forget. People mostly choose to use a bicycle for positive reasons: it's fun, it's healthy exercise, good for the environment, it's fast, it's inexpensive (Fietsverkeer, feb. 2004, p. 3-4; Ege & Krag, n.d.; Stinson & Bhat, 2004). Furthermore,

concerns regarding automobile use (environmental impact) are an important consideration. Almost all bicycle commuters make the conscious choice of using the bicycle and are not captive to bicycle use.

@@aanvullen@@

1.5 Conclusion: cities need cyclists, people need cycling

There are numerous advantages associated with cycling. Cycling is probably the best way to obtain a sustainable transportation system, especially in urban areas. Therefore the question mustn't be 'is it safe to promote cycling?'. Cycling must be promoted and policies must provide the right (safe) conditions to do so. There is just to much to gain from it.

@@cartoon to conclude

2 CYCLING IN EUROPE: STATE OF THE ART

2.1 Differences in bicycle use

Cycling levels vary among different European countries. But also within the different countries large differences in bicycle use can be found, both in the total amount of cycling as well as the kind of people that cycle and the purposes they cycle for. This chapter will provide an overview of bicycle use, mainly, in Europe.

2.1.1 Amount

@@Figures differ somewhat depending on the source.

The bicycle accounts for 27% of all trips made in the Netherlands (Frulanu & de Munck, 2007). For distances up to 7,5 km the bicycle is even the most popular means of transportation with a share of 35%. Compared to most other European countries the bicycle use in the Netherlands is far higher. Only Denmark comes close with an overall share of 19%. Other countries have shares of 10% or less (@@table).

The Netherlands	27%	The top municipalities score between 35-40%, cities with the lowest bicycle use rate between 15-20%
Denmark	19%	The differences between the larger cities are relatively small, in general at the level of 20% of all trips
Germany	10%	The western federal states have a higher average bicycle use, especially Nordrhein-Westfalen, several cities with bicycle shares between 20-30%
Austria	9%	Top: Graz (14%) and Salzburg (19%)
Switzerland	9%	Several cities at a higher level, like Bern (15%), Basel (17%) and especially Winterthur (approx. 20%)
Belgium	8%	The bicycle share in the Flanders region approaches 15%, in some cities higher levels are reached, top: Bruges – almost 20%
Sweden	7%	Cities: 10%, extremes: Lund and Malmö (20%), the small city of Västerås (33%)
Italy	5%	A few striking exceptions, especially in the Po Plains, with places like Parma (over 15%) and Ferrara (around 30%), another top city: Florence (over 20%)
France	5%	Top: Strasbourg (12%) and Avignon (10%)
Ireland	3%	Virtually no upward extremes (Dublin 5% at most)
Czech Republic	3%	A few cities with some degree of bicycle use (Ostrava, Olmouc and Ceské Budejovice, between 5 and 10%) and some with an even higher bicycle use (Prostejov 20%)
Great Britain	2%	Some isolated cities with a much higher degree of bicycle use (York and Hull 11%, Oxford and especially Cambridge nearing 20%)

Table 2: Bicycle use in different countries and cities

Source: Frulanu & de Munck, 2007

Hydén et al (1999) give the share of bicycle trips in total number of trips for 9 European countries and 2 French cities (table @@). The figures sometimes differ from those in the previous table.

Country	Share of trips
Norway	6,2%
Sweden	12,6%
Finland *	7,4%
Denmark *	17,2%
Great Britain *	1,7%
Netherlands	27,0%
Germany 1989	12,1%
Austria (Ober)	6,9%
Switzerland	9,4%
France – Grenoble	4,5%
France - Lyon	1,8%

Table 3: Bicycle use (share of trips) in different countries and cities

Source: Hydén et al, 1999

* Trips longer than 200-500m

Within some countries there might be some regions with a significantly higher bicycle share. Even in countries with a very low bicycle share there might be cities with a far higher bicycle use. These cities are also mentioned in @@table@@. An extensive overview of the bicycle share in some Dutch cities in 1995 is given by de La Bruhèze and Veraart (1999) (table @@). Factors that can explain these differences will be discussed in the next chapter.

	All journeys	Journeys <5 km
Zwolle	39,5%	52,3%
Groningen	39,2%	47,5%
Hengelo	36,9%	48,0%
Leiden	35,9%	45,9%
Enschede	35,6%	44,7%
Utrecht	32,4%	42,7%

Apeldoorn	31,9%	43,8%
Nijmegen	28,0%	36,1%
Amsterdam	27,6%	36,8%
Eindhoven	27,3%	34,7%
Den Haag	24,0%	30,3%
Maastricht	23,7%	31,7%
Vlaardingen	23,3%	30,4%
Arnhem	21,1%	29,0%
Rotterdam	19,4%	27,3%
Heerlen	12,9%	15,4%
Kerkrade	10,3%	14,9%

Table 4: Bicycle use in different Dutch cities

Source: de La Bruhèze & Veraart (1999)

Finland is not really known for having a mild climate. Yet in Oulu, a city of over 100.000 inhabitants, cycle usage is 35% of all trips (Wittink (ed), 2001). It is just over 160 km south of the Arctic circle. In Padova and Ferrara in the Po valley of Italy, cycle usage is also at this level, but is distinctly hot here for many months of the year, and cold and damp in the winter. Basel in Switzerland is scarcely flat, but has 17% cycle use and only 27% car use. Just to say location is not the only aspect to influence bicycle use.

In Germany also bicycle use is considerable in several cities. Muenster tops the list with 32% of all trips by bicycle (Pucher, n.d.). Bremen has a share of bicycle of 22%, Freiburg 19%, Munich 14%, Cologne 11%. The lowest bicycle use is found in the industrial cities of the Ruhr Region (Essen, Bochum, Wuppertal) where bicycle modal split is only 5%.

2.1.2 Distance

In table@@ an overview is given of the mean distances covered by bicycle per person per day (or per year) in 15 EU countries, according to 3 sources. The Dutch have the largest figure for bicycle use per inhabitant in Europe: more than 1000 cycle km per inhabitant per year (Wittink (ed), 2001). Denmark follows with 960 cycle km per inhabitant. Sweden, Germany, Belgium and Finland follow with around 300 cycle km.

Country	**Kms/person/day***	**Kms/person/day (proportion of total distance)****	**Kms/person/year*****
Netherlands	6,66	2,3 (6%)	1019
Denmark	5,48	2,5 (5%)	958
Germany	2,47	0,8 (2,5%)	300
Belgium	2,42	0,9 (2,5%)	327

Sweden	1,95	0,7 (2%)	300
Finland	1,82	0,7 (2%)	282
Ireland	1,62	0,5 (1,3%)	228
Austria	1,11	0,4 (1%)	154
Italy	0,97	0,4 (1%)	168
Greece	0,63	0,2 (0,7%)	91
UK	0,60	0,2 (0,5%)	81
France	0,49	0,2 (0,5%)	87
Portugal	0,26	0,1 (0,2%)	35
Spain	0,18	0,1 (0,2%)	24
Luxembourg	0,00	0,1 (0,2%)	40
EU15	1,42		

Table 5: Average distance cycled per person per day

*Source: Rietveld & Daniel, 2004

**Source: Hydén et al, 1999

***Source: Dekoster & Schollaert, 1999

@@include figure p11 from Jensen et al, 2000?@@

2.1.3 Purpose

In the Netherlands the use of bicycles is not restricted to school-going children (Frulanu & de Munck, 2007). Certainly, bicycle use among those involved in 'education/study is the highest (48%), but this only relates to a limited percentage of all journeys (9%). The high overall cycling proportion is far more due to the fact that the bicycle achieves a more or less comparable share in all travel motives – and particularly in the most important motives, such as commuting and shopping. In the Netherlands many people do not make absolute choices between using the car or the bicycle over shorter distances. The image of 'sometimes the bike and sometimes the car' is dominant.

@@include table p6: Frulanu & de Munck, 2007?@@

A similar picture exists in Denmark. About 40% of all cycle trips made by Danes are between home and work/education (Jensen et al, 2000). The importance of the bicycle as an everyday transport mode is illustrated by the fact that twice as many kilometers are cycled on weekdays as on Saturdays and Sundays. In contrast, bicycles are rarely used for trips made during working hours. The bicycle is also popular in spare time. Every fourth cycle trip is between home and leisure activities. In most cases the bicycle is used to visit family and friends or go to the cinema or sports. A cycle trips is rarely a leisure activity in itself.

@@ include fig p10 Jensen et al, 2000?@@

In Germany most bike trips are leisure trips (37%) or shopping trips (23%) (ECF, 2004). Only 22% of bike trips are for work, educational or business purposes. @@other countries?@@

2.1.4 Who cycles?

In the Netherlands people of all ages cycle (Pucher & Dijkstra, 2003). Youngsters between 18-24 years make 30% of their trips by bicycle, but elderly (75+) still make about a quarter of their trips by bicycle. All age groups make between a fifth and a quarter of their trips by bicycle. In Germany similar tendencies are noticed although on a global lower level. Dutch cyclists can be found among every social subgroup. Workers, staff, members of parliament and even the queen, all can be seen cycling.

In Germany 19% of people aged 14 and over ride a bike (almost) every day (ECF, 2004), 34% every week or month and 47% rarely or never. Children and young people between the ages of 10 and 17 make the highest proportion of their journeys by bicycle (16%).

Half of all pupils at primary and lower-secondary schools in Denmark cycle to school (Jensen et al, 2000). A good 30% cycle to upper-secondary institutions, which tend to be further from home than schools for younger pupils. Almost 40% of the students cycle to the institutions.

2.1.5 Bicycle ownership

Bicycle ownership varies among European countries (@@table) as does bicycle use. The Netherlands is the only European nation with more bicycles than people (Frulanu & de Munck, 2007). On average the Dutch own 1,11 bicycles per person. The number of bicycles sold in the Netherlands is also high: 1,2 million bicycles in 2005 (for 16 million inhabitants). 4,9 millions bicycles were sold in Germany (82 million inhabitants), 3,2 million bicycles in France (60 million inhabitants) and 2,5 million bicycles in Great Britain (also 60 million inhabitants).

Country	Bicycles/person*	Bicycles/1000 persons**
Netherlands	1,11	1010
Denmark	0,83	980
Germany	0,77	900
Sweden	0,67	463
Finland	0,63	596
Belgium	0,50	495
Italy	0,45	440
Ireland		250
England/UK	0,40	294
Luxembourg		430
Austria	0,40	381
France	0,34	367
Greece		200
Spain	0,18	231
Portugal		253

Table 6: Bicycle ownership in different countries

*Source: Frulanu & de Munck, 2007

**Source: Dekoster & Schollaert, 1999 (based on Europbarometer 1991)

2.2 Potential

More than 30% of trips made in cars in Europe cover distances of less than 3 km and 50% are shorter than 5 km (Dekoster & Schollaert, 1999).Taking into consideration 3-5 km we could get rid of half of all car trips in many European cities (Hydén et al, 1999). Brög and Erl (1994, as cited in Wittink (ed), 2001) have studied the potential for modal shift from car to cycling in German cities. They have shown that at least 30% of car trips in urban areas could be replaced by cycling trips. Just by replacing a quarter of short car trips by cycle trips, the cycle share would be doubled in Finland and Norway, and multiplied by about 3 in Great-Britain, and by 4 in France.

In Flanders around 50% of all car trips are shorter than 5 km, a distance commonly assumed to be suited for cycling. Nuyts and Van Hout (2007) therefore investigated the potential for cycling in the Flanders region of Belgium. They took not only the distance covered into account, they also incorporated trip chaining, social safety, the length of the activity and the age of the road user. It was found that 17% (12-21% according to the assumptions made) of all car trips could be easily replaced by bicycle and about one third of all short journeys (<5 km) as a car driver. When this shift could be accomplished the modal share of the bicycle would increase from the current 15% to 25% (22-28%, to be compared with the objective of 19% posed by the Flemish government) while the share of cars would decrease from the current 62% to 51%.

Yet another study on the potential for substituting car trips with bicycle trips was performed by James et al (1999) for cycling in Perth (Australia). They found that 29% of all motorised private mode trips are in principle replaceable by bicycle (car trips with no constraints (e.g. <6 km), bicycle available).

By improving the maintenance service level of cycleways, it might be possible to increase the number of bicycle trips during winter by up to 18% representing a decrease of car trips of up to 6% (in Sweden, Bergström & Magnusson, 2003).

Policies should be oriented in a way that this potential can be converted in a real cycling share. To that goal it is interesting to know that 73% of Europeans believe that bicycles should benefit from preferential treatment compared with cars (Dekoster & Schollaert, 1999 referring to the Walcyng-project).

2.3 Trends

Bicycle use changed little in the Netherlands between 1994 and 2003 (Ververs & Ziegelaar, 2006) and 1991 and 2004 (Fietsberaad, 2005). The average number of bicycle journeys keeps oscillating around 0,8 journeys per person per day (on a total of around 3,1 journeys). As such the temporal dispersal is far less pronounced than spatial variability. The modal split of the bicycle varies in the period 1991-2004 between a low of 25,0% in 1998 and a high of 26,4% in 2003.

De La Bruhèze & Veraart (1999) studied bicycle use in nine European cities during the twentieth century. Most of these cities knew a high bicycle use up to the fifties. Then a period of decreasing bicycle use followed (1950-1975). A third period is distinguished from 1975 when bicycle use increases again in most cities. Different policies in these periods make that the present bicycle use differs quite a lot between different cities. In areas with a high current bicycle use, the bicycle always was accepted as a normal means of transportation and was therefore imbedded in transportation policies.

Certain cities have been very successful in the past decades to increase bicycle use. @@examples@@ Just to show that it is possible to create a bicycle friendly environment were people love to cycle. 80% increase in cycling in London since 2003, Darlington +56,8%, Derby +10,8%, Exeter +20,9% and Lancaster +2,4% (based on data of Sustrans, as mentioned in @@).

3 INFLUENCING FACTORS

Many factors influence bicycle use. Several authors attempt to group different factors in a number of groups, depending on the purpose of the research. In this text we follow the classification proposed by Xing, Handy & Buehler (2008). They include individual factors (such as preferences, beliefs), social environment factors (bicycle culture) and physical environment factors (infrastructure, land use).

Other authors use different classifications that are better suited for their needs. Ververs and Ziegelaar (2006) @@fig invoegen?@@ include transportation policy variables (including bicycle policy), spatial-economical characteristics of the municipality, population characteristics and physical characteristics. Moudon et al (2005) found a strong role of socio-demographic variables on bicycle use. Nevertheless some environmental variables proved to be significant determinants of bicycle use.

3.1 Individual factors

Several individual factors influence bicycle use. Population characteristics such as age and gender have a distinct impact on bicycle use, that may be different for different locations. The perception of the relative importance of different factors will also vary according to the level of experience of the cyclist.

3.1.1 Age

In most studies found age has a negative effect on cycling (Xing, Handy & Buehler, 2008; Winters et al, 2007; Moudon et al, 2005). Younger people tend to cycle more than older. Most of these studies are performed in the USA and Canada however, regions with a low cycling level. While the same findings may be true for European countries with low cycling levels, in countries with a high bicycle use we find in general that people of all ages cycle (see also section 3.1.4). The main explanation for this might be that younger children are not allowed to drive a car. Therefore their travel choice is somewhat restricted. @@vbn Europa toevoegen, eventueel obv OVG's@@

As in many countries cycling is before all the transport mode for younger people, student status is an important modifier of cycling behavior (Winters et al, 2007). Cities with a higher proportion of students have in general higher cycling rates. Rietveld and Daniel (2004) also found that a higher proportion of young people (15-19 years) and the presence of a school for higher vocational training include a higher bicycling share.

3.1.2 Gender

In many countries (especially in those with a low bicycle use) females are less likely to be cycling than men. Winters et al (2007) studied the influence of personal characteristics and climate on the levels of utilitarian cycling in Canadian cities. In the general population older age, female gender, lower education and higher income were associated with lower likelihood of cycling. Women were only half as likely as men to cycle. Moudon et al (2005) found similar results for the USA. About 2/3 of cyclists are male there. In countries with a high bicycle use on the other hand women tend to cycle as much as men. @@Europese vbn, relatie met ritmotief@@

3.1.3 Status

Higher education levels are in general associated with an increased odds of bicycling (Xing, Handy & Buehler, 2008). After adjusting for income and other demographics, Winters et al (2007) also found that people with higher education were more likely to cycle.

Moudon et al (2005) found no significant relationship between household income and the likelihood of cycling. A likely proxy for income, number of cars in the household, is however found to be significant. A higher number of cars per capita was also found to be

positively correlated with a lower bicycle use in Dutch municipalities, as were a higher proportion of VVD-voters (liberal party), a higher proportion of foreigners and more hilly municipalities (Rietveld & Daniel, 2004).

3.1.4 Cyclist type

Preferences and perception about (safe) cycling differ among different kinds of cyclists and non-cyclists. Stinson and Bhat (2004) indicate that the most important factors in choosing a commute mode are travel time, convenience, needing a car for work or other purposes and cost. Other deterrents to bicycle commuting to work include dangerous traffic conditions, lack of bicycle infrastructure facilities, physical exertion (especially in hilly terrains) and adverse weather conditions. Bicycle commuters more often cite unpleasant weather and an injury/illness as being deterrents than do non-bicycle commuters. On the other hand, non-bicycle commuters have a much higher likelihood of identifying lack of daylight, unsafe neighborhoods, distance to work being too long, dangerous traffic and lack of bicycle facilities as being deterrents than bicyclists. While some of these differences may be reasonable, others may be due, at least in part, to misperceptions and misconceptions on the part of the non-bicycle commuters.

Stinson & Bhat (2005) also found a clear distinction between the sensitivity towards different aspects according to the level of cycling experience. In general, experienced commuter bicyclists are far more sensitive to factors related to travel time and far less sensitive to factors related to separation from automobiles than the inexperienced individuals. Compared to route choices for the inexperienced cyclists, the route choices made by experienced bicycle commuters are not as impacted by variables that reflect perceptions of safety from automobile traffic. Comfort with automobile traffic allows experienced bicycle commuters to place a higher premium on travel time. While safety-related attributes are also clearly important to experienced bicyclists, they are much less influential in the route choice selections of experienced bicyclists compared to inexperienced bicyclists. On the other hand, travel times and delays are not as influential for the inexperienced group as for the experienced group. From this it may be clear that *the* cyclist does not exist. This makes it more difficult for policy makers to do the right thing for all (potential) cyclists. @@other studies to back this up?@@

Stinson and Bhat (2004) finally suggest that, like other modes of commuting, bicycle use for commuting is also habit forming. Alternatively, it may be that comfort in bicycle commuting comes from experience.

3.2 Social environment

The social environment entails bicycle culture (social values and norms) and policy as well as some other characteristics inherent to the community. Bicycle use can be increased everywhere. If and the amount it will increase depends to a large degree on the policy measures taken in a certain location. These policy measures reflect the importance attached to certain problems or opportunities. Municipalities or regions that take cycling serious usually spend relatively more resources on measures that promote cycling. The importance policy makers attach to cycling depends on the actual amount of cycling (more cyclists mean more cyclist voters), the pressure exerted by bicycle groups and the vision and influence of the right person on the right place. On the other hand cyclists can be encouraged to cycle more when they see policy makers take cycling seriously. It's all about changing minds.

3.2.1 Policy

A policy in favor of the bicycle works best when both push and pull (stick and carrot)-measures are taken. Cycling has to be made more attractive while the alternative of car driving should be made more costly and time consuming. Pucher & Buehler (2006) found that higher gasoline prices encourage cycling (by discouraging car use) and that cycling safety is crucial to increasing cycling levels. Rietveld and Daniel (2004) looked into the

influence of a large number of variables on bicycle use. They also provide a general framework in which they take into account, aside from some individual features, the generalized costs of cycling (including monetary cost, travel time, physical needs, risk of injury and theft, comfort and personal security) and the generalized costs of other transport modes. Many of these variables reflect aspects that can be changed through policy. The results implicate that there are essentially two ways of encouraging bicycle use (push and pull): (1) improving the attractiveness of a mode by reducing its generalized costs; and (2) making competing modes more expensive.

Ververs and Ziegelaar (2006) constructed an elaborate prediction model for bicycle use in Dutch municipalities as well. The model contains policy variables (which can be influenced by policy) as well as more autonomous variables (which (almost) cannot be influenced by policy). Both have a similar influence on bicycle use. The variables are grouped into 3 categories: strongly policy relevant, moderately policy relevant and weakly policy relevant. Among the strongly policy relevant variables parking fees (for cars) have the strongest positive influence on bicycle use. The share of public transportation and travel time competitiveness both have a negative impact on bicycle use. Moderately policy relevant variables include the number of one-person households (a strong positive influence on bicycle use), number of unemployed inhabitants (a negative influence), number of young people (positive influence) and the size of the built-up area (negative influence). Among the weakly policy relevant variables we find the share of Muslims (which has the strongest negative influence on bicycle use), share of Protestants (positive effect), average amount of precipitation (negative impact) and the hilliness (strong negative influence).

Rietveld and Daniel (2004) also found that municipalities with a higher degree of satisfaction (about bicycle policy) have in general a higher share of short trips by bicycle.

3.2.2 Car availability and cost

Availability of a car has a significant impact on cycle use (Ege & Krag, n.d., according to the national Danish travel survey). Very little cycling takes place in multi-car households. Pucher & Buehler (2006) state that due to the higher overall cost of owning and operating a car in Canada compared to the USA and the lower per-capita incomes bicycling rates in Canada are higher. Stinson and Bhat (2004) also found that the propensity to bicycle commuting is greater among individuals who have fewer cars in their household. It remains an open question whether a lower number of motorized vehicles causes a higher bicycle commuting propensity or whether individuals (as part of their household) decide on the number of cars based on their propensity to commute by bicycle.

3.2.3 Bicycle culture and social values

Bicycle culture is mostly associated with cities and countries that feature a high rate of bicycle usage as part of their cultural identity. In cities with a real bicycle culture it is common for all kinds of people to make journeys with different motives by bicycle. These cities usually have a well-developed infrastructure favoring cyclists. The bicycle is part of the ‘normal’ transportation policy.

3.2.4 Bicycle theft and other crime/stranger danger

A survey in Haarlem (NL) revealed that 14% of the respondents had a bicycle stolen in the past year (the survey was held in 2002). This means that around 12.000 were stolen in a year (www.fietsersbond.nl). Only 1860 bicycle thefts were reported to the police. An estimation for the Netherlands as a whole comes to around 1 million bicycles that are stolen during one year. Amsterdam tops the list with 19,4 bicycles per 100 bicycles that were stolen. Bicycle theft is seldom a priority of the police departments. Recent efforts in the Netherlands have however reduced the number of stolen bicycles. From a survey of the Dutch Fietsersbond they found that 45% of the people chooses an other vehicle instead of the bicycle for shopping or going out because they are afraid their bicycle

might get stolen. As such bicycle theft is a major concern when it comes to promoting bicycling. Often it is not really the fact of the stolen bicycle that concerns people but rather the fact they can't properly return home. Another consequence of bicycle theft is that people tend to ride inferior defective bicycles which poses a safety threat.

3.2.5 Road safety

The unsafety on the roads also withholds many people from using a bicycle (PROMISING, 2001). If cycle use is to be increased and maintained, there has to be an answer to the concerns of people, both real and perceived, of cycle use and its safety. Improving the safety of cyclists on the road is therefore a precondition for cycle promotion.

Regardless of the mode actually used, the bicycle is almost always perceived as the riskiest mode for commuting (Noland, 1995). Individuals are more likely to choose a given commute mode the safer they perceive it to be. By incorporating both perceived accident probability and perceived severity, Noland (1995) found that perceived probability was not significant, while the perceived severity is. Perceived safety improvements in bicycle transportation have an aggregate elasticity value that is greater than one. This means that bicycle safety improvements attract proportionately more people to bicycle commuting (Noland, 1995). When perceptions of bicycling risk are reduced without any change in objective risk, increases in fatalities can be one possible outcome. Rietveld and Daniel (2004) found that Dutch municipalities with a higher safety level for cyclists also have a higher share of bicycling for short trips.

Ryan (2000) states that the more a person cycles, the less likely they are to fear having an accident. Utility cyclists' increased willingness to cycle in traffic is probably a combination of increased skill, experience and confidence, and changed perceptions about the level of risk.

3.3 Physical environment

A third group of elements influencing bicycle use can be grouped under the flag of the physical environment. These elements include geographical issues as well as man-made infrastructure.

3.3.1 Weather/climate

Weather and climate have a distinctive effect on bicycle use. Nevertheless we find cities with a high bicycle use in region with a less suitable climate. Oulu in Finland has cold winters while Ferrara is hot in summer and cold and damp in winter. Yet about 1/3 of all trips are made by bike. Many regions with better meteorological circumstances have far lower bicycle rates.

Several weather conditions influence bicycle use: temperature, precipitation, wind conditions. Bicycle use in the Netherlands is especially related to the amount of warm days (maximum temperature over 25°C) in a year (van Boggelen, 2007). The number of wet and cold days in a year also influences the amount of cycling albeit in a lesser way. In Germany a mobility survey revealed that on sunny days 10% of all trips were made by bike, compared with 7% on rainy days and 3% on snowy days (ECF, 2004).

In general discretionary travel is more affected by weather than commuter trips (Nankervis, 1999 referring to Hansen & Hansen, 1975). Nankervis (1999) studied the effects of weather and climate on the bicycle commuting patterns among tertiary students in Melbourne. He found a significant effect of temperature, wind and rain. Rider numbers are particularly sensitive to extremes of temperature. Rain was only found to be marginally significant. It should be noted that students are a atypical social group. Also the likelihood of rain seemed to affect the number of riders. They have to make the journey and often have no other choice than to cycle. Nankervis concludes that, for the

students studied, neither weather nor climate needs to be a strong barrier to cycle commuting. Winters et al (2007) found for Canadian cities that more days of precipitation per year and more days of freezing temperatures per year were both associated with lower levels of utilitarian cycling. In the proportion of students only the number of days with freezing temperatures influenced bicycling. Brandenburg et al () found that precipitation and the Psychological Equivalent Temperature thermal comfort index both influenced the number of cyclists in recreation areas in Vienna, but recreational bicyclists are more sensitive to these weather conditions than are commuting cyclists.

As weather conditions are also seasonally it shouldn't be a surprise that workers commute by bicycle more frequently in the summer than in spring or fall and less frequently in winter than during other seasons (Stinson & Bhat, 2004). From general travel surveys the same picture can be drawn. Bergström and Magnusson (2003) also found clear differences in mode choice between seasons. In two Swedish cities the number of bicycle trips decreased by 47% from summer to winter. Temperature, precipitation and road condition were the most important factors to those who cycled to work in summer but not in winter. Exercise was the most important to those who cycled frequently in winter. Travel time was the most important for those who never cycled to work.

3.3.2 Topography

Cyclists have a preference for riding on flat ground (Stinson & Bhat, 2005) since cycling in hilly terrain demands more effort of the riders. This preference is more pronounced by inexperienced cyclists. Ververs and Ziegelaar (2006) found a strong negative effect of hilliness on bicycle use. Still this does not mean that cycling is impossible in hilly communities. Cycling levels in Basel (Switzerland), which is hardly flat, are high.

3.3.3 Distance/land use

Distance (and strongly correlated trip time) is probably the most important determinant of bicycle use. Distance and time are mentioned as the most important factors for cycling to work as well as not cycling to work in Copenhagen (Ege & Krag, n.d.). In general bicycle use highest in the range up to about 5 km (except for very short distances where walking takes over). Bicycle use decreases sharply when the trip distance increases above 5 km. Nevertheless some bicycle trips are much longer.

The average length of a bicycle trip is 2 km (Hydén et al, 1999). In Denmark and in the Netherlands the bicycle trips are longer than in other European countries. The willingness to cycle over longer distances differs between countries with good amenities and a flat topography (Denmark and the Netherlands) and other countries. However, in general we should not expect people to use a bike for transport on distances longer than 3-5 km. The average bicycle trip in Germany was 3,3 km and took 21 minutes (ECF, 2004). Distance also seems to be more significant for the mode choice during the winter period (Bergström & Magnusson, 2003). Most people don't seem to like cycling to long under the adverse weather conditions that are more prevalent during winter.

Increasing trip length has an important and significant negative effect on the attractiveness of cycling (Hunt & Abraham, 2007). The sensitivity to cycling trip time varies thereby substantially with cycling facility type. For the typical cyclist, 1 minute cycling in mixed traffic is as onerous as 4,1 minutes on bike lanes or 2,8 minutes on bike paths.

There is an intimate relationship between urban land-use development and transportation (Tomlinson, 2003). Journey lengths are strongly related to land use. Journeys in densely populated areas with mixed land use tend to be shorter. A comparative study of bicycle use in Canada and the USA revealed that the higher bicycle

use was, amongst others, caused by Canada's higher urban densities, mixed-use development and the shorter distances caused by these (Pucher & Buehler, 2006). Higher densities and mixing of land uses probably encourage more cycling, simply because trip origins and destinations are less spread out, so that trip distances tend to be shorter and thus more bikeable.

Rietveld and Daniel (2004) include a large number of variables in order to explain the differences in bicycle use in Dutch municipalities. Several city characteristics seem to be significant predictors of bicycle use. The share of bicycle trips under 7,5 km decreases when the population number increases and the human activity indicator (basically the density of addresses) increases. Jensen (n.d.) also found that land use has a major influence on transport mode choice. Next to topography population density influences the level of cycling the most (in Danish towns). The number of inhabitants only influences the level of cycling when the number of inhabitants in the town is less than 10.000. People choose the bicycle more often in a densely populated, circular, flat town with more than 10.000 inhabitants, where most housing are located in the town center.

The spatial distribution of activities is very much defining both the need for travel and the distances to be covered (PROMISING, 2001). Decisions on this level have a direct impact on the requirement of directness. Segregation of functions will generate more need for traveling. Space consumption has a direct impact on distances between the functions. Long travel distances are restricting the usability of the bicycle. There is a need to develop a land use planning based on the principle of 'spatial proximity'. Urban planning and street design are also important to fulfill the required needs of bicycle networks (PROMISING, 2001). Urban planning is necessary in order to meet the coherence requirement. It also contributes to an increased safety. In street design the needs of cyclists should be taken into account where cyclists are treated on a level equal to other road users.

Car traffic is, at least partly, responsible for this destruction of urbanity (Monheim, 2003). Low density housing, commercial and industrial districts group around giant parking lots and superhighways far from the city center. As a consequence distances become larger and therefore less suitable for cycling. A more compact land use pattern leads to overage trips distances that are shorter and thus easier to cover by bike (Pucher & Dijkstra, 2003).

3.3.4 Infrastructure

Based on the benchmarking project 'Fietsbalans' a clear relationship is found between bicycle use in municipalities and the quality of their infrastructure (Cycling in the Netherlands). More cycle tracks and more even roads are mentioned as the most important factors by people from 2 Danish cities in order to make people cycle more (Ege & Krag, n.d.). Lack of even roads and stops at traffic lights are mentioned as the most important inconveniences by those who already cycle to work in Copenhagen. Safety has a minor importance, both as an impediment and as a reason not to cycle. Both cyclists and non-cyclists indicate that changes in the built environment would help them bicycle more (Moudon et al, 2005). Frequently mentioned environmental changes that can encourage cycling include: more bike lanes and trails (mentioned by almost half of the respondents), good lighting at night (33%) and bicycle racks at destinations (31%). Dill and Carr (2003) also found that new bicycle lanes in large cities will be used by commuters.

Krizek and Johnson (2006) investigated the effect of proximity to bicycle facilities and neighborhood retail on urban cycling, controlling for individual, household and other characteristics. They found that bicycle use did not differ significantly by proximity to any bicycle facility, although people that live closer to these facilities are slightly (but not significantly) more likely to use their bicycle. After adjusting for individual and household characteristics the difference between those living closer than 400 m and those living further than 1600 m became significant. They add that it would be inappropriate to use

the results from their research to conclude that adding retail or bicycle paths would directly induce walking or bicycling.

Hunt and Abraham (2007) performed a stated preference experiment in Edmonton (Canada). The results indicate, among other things, that time spent cycling in mixed traffic is more onerous (and thus a deterrent) than time spent cycling on bike lanes or bike paths. Furthermore secure parking is more important than showers at the destination (although still appreciated). Cycling times on roadways tend to become less onerous as level of experience increases.

Stinson & Bhat (2004) state that the presence of bicycle racks or bicycle locker facilities at work increases the likelihood of commuting by bicycle. The presence of showers and clothing lockers did not show any significant influence in this study.

Inexperienced cyclists perceive major and minor arterials as much greater deterrents to choosing a route than individuals who are experienced bicycle commuters (Stinson & Bhat, 2005). Bicyclists (both experienced and inexperienced) tend to avoid routes with links on which parallel parking is permitted, presumably because parked cars can pose a safety threat to bicyclists with car doors swinging open or cars pulling out in front of the bicyclist's path. Bicyclists have a preference for routes designed for bicycle use, that offer some or total separation from motorized traffic. Especially inexperienced cyclists value a separate path or a bicycle lane more than experienced users. Bernhoft & Carstensen (2008) found similar results when comparing different age groups. The older respondents valued cycle paths more than did the younger as did women more than men. Although both older and younger cyclists agree that it is quite nice to have a cycle path, less younger people find it dangerous when no cycle path is available and still less would alter their route for it. They find cycling alongside parked cars more dangerous and routes for cycling should be direct and fast. A clear preference for a smooth pavement riding surface exists, especially with the more experienced cyclists (Stinson & Bhat, 2005). A Dutch survey revealed that cyclists prefer an asphalt pavement above a pavement made up of tiles (mainly used because of the ease of replacing when pipes below the surface have to be replaced) (Fietsberaad, 2006).

More frequent stop signs along a bicycle route discourage the use of that route, with experienced individuals being more sensitive to this than inexperienced users (Stinson & Bhat, 2005). While inexperienced riders value routes with many traffic lights, experienced riders tend to dislike them as they feel more confident in their ability to handle intersections without the need for any kind of control.

From the above it is clear that cyclists come in many shapes, sizes and abilities. Advanced, basic and child or elderly cyclists have different abilities. Each type of cyclist should be served with bicycle network designs suited for their needs. Meeting all their needs will therefore be a tricky balance (Aultman-Hall, n.d.).

Rietveld and Daniel (2004) found that a higher stop frequency (more places where cyclists have to stop) or hindrance frequency (badly placed posts and narrowings) reduce bicycling share (Stinson & Bhat (2005) found similar results). Increasing parking costs (for cars) and improving on bicycle speed (relative to the speed of car traffic) increase bicycling share. Quality of the bicycle network is certainly an aspect that must be taken into account. In PROMISING (2001) the main requirements for bicycle infrastructure are mentioned: safety, coherence, directness, comfort and attractiveness (these requirements were first mentioned in the Dutch Bicycle Manual (Sign up for the bike)). Separate bicycle facilities are thereby not always necessary, in fact even not always recommended. Most bicycle manuals (@@ref@@) recommend that of-road cycle facilities only be provided where motor vehicle speeds and volumes exceed particular threshold values. Experienced utility cyclists largely prefer to cycle on the road because it generally provides a higher level of service.

Road condition seems to be an important factor for the choice of mode (Bergström & Magnusson, 2003). More people (in Sweden) would cycle (more) during winter when the maintenance service level of cycleways was improved. Snow clearance seems to be a bit more important than skid control and a lot more important than the occurrence of grit or debris and surface unevenness. The road condition factor does not seem to be as important for winter cyclists as they are to others (in particular to cyclist who only cycle during summer).

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BYPAD

More quality for bicycle traffic

The most efficient method for improving your local cycling policy!

BYPAD BICYCLE POLICY AUDIT

Annex II: Portraits of some BYPAD-cities, towns, regions

August 2008

Supported by Intelligent Energy Europe

Introduction

In this annex we give a short overview of the reasons why cities used BYPAD and the main results of BYPAD for these cities, towns and regions.

You find a reaction of the following BYPAD-cities, towns, regions:

- BASEL, Switzerland
- GENEVA, Switzerland
- ZURICH, Switzerland
- SAN SEBASTIAN, Spain
- SOUTH BOHEMIA REGION, Czech Republic
- OLOMOUC REGION, Czech Republic
- REGION of SOUTH MORAVIA, Czech Republic
- OSTRAVA, Czech Republic
- SOUTHWARK, London borough, Great-Brittain
- GAVLE, Sweden
- KARLSTAD, Sweden
- LUND, Sweden
- EINDHOVEN, Netherlands
- SINT TRUIDEN, Belgium

CITY of BASEL, Switzerland	
Number of inhabitants	187.332
Area	37 km^2

Bypad report	
Reason for using the Bypad-tool: - To know where we stand - To improve the bicycle policy	

Experience with the Bypad tool
"We got the qualitative evaluation of our cycling policy as well as a report of account in preparation for new blanket credit for further cycling promotion."

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization

we got political acceptability and arguments in favour of a second bicycle credit (global budget/blanket credit) to finance the new programme bicycle policy. It includes infrastructural and operational measures as well as "soft policies"-measures and data management.

Basel, Clarastr. bicycle parking

2. Infrastructure

Further completion of cycle routes, also improvement of older cycling measures based on the experiences of the last 30 years - especially creating more and improving existing parking spaces for bicycles.

Basel, cycle lane

3. Other actions (Information, education, parkingpolicy, land useplanning, …)
For example: - Information brochure on cycling policy - Education campaign for children, called "Veloparcours" (cycling exercise facilities) - Safety campaign ‘dead angle’ (with radio and cinema spot, training /education film)

4. Evaluation and monitoring
- Census of the inhabitants of Basel in 2005 and 2007 - Concept of data management and base data - New permanent counting locations in planning (8 existing)

CITY GENEVA, Switzerland	
Number of inhabitants	185.726
Area	16 km^2

Bypad report	2004

Reason for using the Bypad-tool:
- To know were we stand
- To improve the bicycle policy
- To convince others of the importance of bicycling
- To be part of the BYPAD network and learn from other cities

Experience with the Bypad tool

"According to me, the "weakness" of this audit is the fact that the concept is very difficult to communicate to the public, and politicians. It is not pragmatic enough. It also takes a lot of time for the technicians, who are already convinced, to work on it."

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization

In fact, we do already have committees, working groups and a cycling policy. We cannot say that the Bypad audit pushed it forwards.

2. Infrastructure

Step by step, the cycling network is developped. Mostly together with collectif transport infrastructure (tramways, train connexion, etc).

3. Other actions (Information, education, parkingpolicy, land useplanning, ...)

We continue to promote the use of cycling through "samedi du vélo".
To help increasing safety, we organize mecanical classes (riding with a bicycle in order, brakes, light, etc) and courses to learn how to ride, for adults (to keep one's balance, to learn traffic rules, etc).

FACTS AND FIGURES

Modal split: % of number of daily trips per modus

Walking	30%
Bicycle trips	4%
Public transport	15%
Car trips	51%

CITY of ZURICH, Switzerland	
Number of inhabitants	376.453
Area	92 km^2

Bypad report	2006
Reason for using the Bypad-tool: - To improve the bicycle policy - To convince others of the importance of bicycling	

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization

No specific actions. Policy and committees are in Zurich already quite good.

2. Infrastructure

Making the bicycle infrastructure more visible. Guarded parking facilities during events.

3. Other actions (Information, education, parkingpolicy, land useplanning, ...)

Specific comunication and training for different target groups. Promoting the bicycle as a daily mean of transport.

4. Evaluation and monitoring

Better analysis of potentials and cycle traffic in general. Impact analysis of the cycle policy.

FACTS AND FIGURES

Modal split: % of number of daily trips per modus	
Walking	43%
Bicycle trips	7%
Public transport	27%
Car trips	23%

CITY of SAN SEBASTIAN (DONASTIA), Spain	
Number of inhabitants	184.442
Area	61 km^2

Bypad report	
Reason for using the Bypad-tool: - To know were we stand	

Experience with the Bypad tool
“Knowledge of the necessary improvements in different aspects of bicycle policy.”

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Infrastructure
- Bicycle network built in 2007: 3,5 km - Signaling guide of cycling lanes - Recomendations guide for suitable use of cycling infraestructures

2. Other actions (Information, education, parkingpolicy, land useplanning, ...)
- First contacts to begin the activity of "In Bicycle to the School" - Bicycle Week 2008 - Public Bicycle System

3. Evaluation and monitoring
- Reports of the Bycicle Observatory - Bicycle users typology's study

SOUTH BOHEMIA REGION, Czech Republic	
Number of inhabitants	162.540
Area	1625 km^2

Bypad report	
Reason for using the Bypad-tool: - To improve the bicycle policy	

Experience with the Bypad tool
"we can work better with politics"

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization

Beside the South-Bohemian regional government, many other partners contribute to development of cycling. The most important cooperation of the regional government is focused on cities, municipalities, private sector, and NGOs working in the field of development of tourism, sustainable transport, … The main objective of the Foundation is to develop cycling and achieve a good coordination of all the activities in benefit of cycling within the whole region. Some of their popular activities are focused on organising cycling events, publishing leaflets on cycle routes in the region, auditing the quality of south-bohemian cycle routes and monitoring of bicycle use along them.

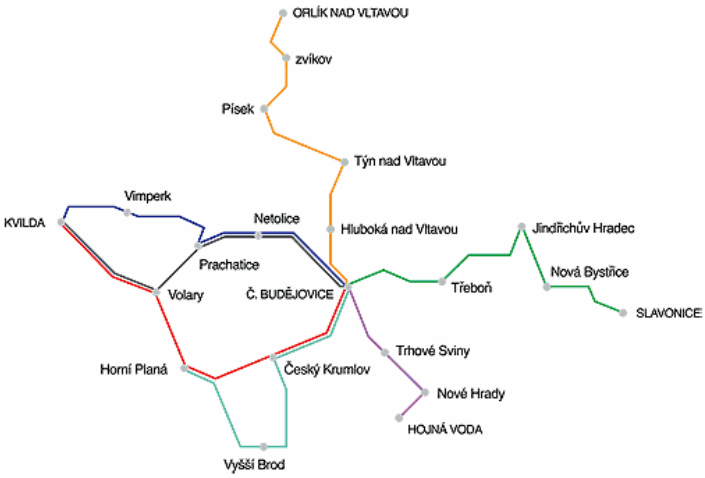
By the end of 2006, the conception of cycling development in the South-Bohemian region (hereinafter the Conception) was set up and fully adopted in 2007. The document has come out of the objectives of the National Cycling Strategy and defined concrete regional priorities for improvement of cycling in South Bohemia.
The Conception reflects both integral streams of cycling:

1. cycling as a means of environment-friendly transport
2. cycling as an attractive way of tourism development

The policy defines the following main priorities for the period of 2007-2013:

- Priority 1 Development of cycling as an equal means of transport to others in the South Bohemian region
- Priority 2 Development of cycling as an integral and important part of tourism supply in South Bohemia
- Priority 3 Support of supra-structural and cross-cutting activities for development of cycle tourism and cycling transport in South Bohemia

Obrázek - Mapa sítě dopravního systému CYKLOTRANS



South Bohemia region, bicycle route network

2. Infrastructure

With the objective to create a detailed database containing a comprehensive and full-range information on extent, alignment and quality of the cycling network (per concrete stretches) in the South Bohemian region, the Foundation implements regular audits since 2006. The final results of audits bring a picture and information on South Bohemian cycle routes and cycle paths.

South Bohemian region, Cycle lane

OLOMOUC REGION, Czech Republic	
Number of inhabitants	639.033
Area	5.267 km^2

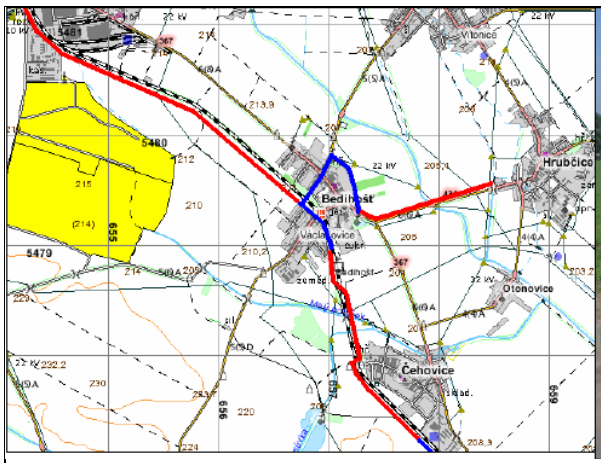
Bypad report	2003
Reason for using the Bypad-tool: - To improve the bicycle policy	

Experience with the Bypad tool
"help gain ground of our cycling policy."

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization

As for comunication among the regional government and officials from local governments, politicians, experts and other 'clients', a regular dialogue takes place. All the data is summarised in report on status of cycling transport in the region, elaborated in 2006.
The Regional Council has decided on a regular yearly financing for construction of cycle paths. Therefore a founding stone for support of cycling in the region has been set-up.



Olomouc region

2. Infrastructure

The cycling measures are yearly financed from a fixed amount of the regional budget. Financing is earmarked mainly for construction and improvement of cycling infrastructure
Since 2005 the regional government financially supports maintenance of cycle signs (300.000 CZK/year), the promotion tour series "Discover the Olomouc region by bicycle" (100.000 CZK/year).
Promotion of cycle tourism makes a part of the tourism promotion strategy.
Support of cycling from the regional government is equilibrated among realisation of long-distance cycle routes and local routes for commuting of cyclists (which mostly go on roads with low car traffic or separately in some cases).
The regional government has a competence to develop stretches of interurban cycle routes

suitable for daily cycling as well.

3. Other actions (Information, education, parkingpolicy, land useplanning, …)
- the project “Discover the Olomouc region by bicycle” focuses on communication with inhabitants of the region, as well as on coming visitors and offers an interesting way of getting to know the region thorough organized bicycle tours. The year of 2006 became the pilot phase when the project idea and preparedness of micro-regions were tested. The group of project partners has found a set of itineraries and presented the region in an attractive way. From the 1st of May till the 16th of September 2006, 13 cycling events in the frame of the project were organized. Each event was coordinated by the related micro-region and its local governments. The mayors, project partners and journalists participated in bicycle touring, promoting local cycle routes. The series of bicycle rides was accompanied by a cultural and sport program.

4. Evaluation and monitoring
The regional government has an exact database of cycle infrastructure in the region.

REGION of SOUTH MORAVIA, Czech Republic	
Number of inhabitants	1.132.563
Area	7.196 km^2

Bypad report	
Reason for using the Bypad-tool: - To improve the bicycle policy	

Experience with the Bypad tool
"Thanks to this project we prepared a new strategic Bicycle plan."

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization

The Region of South Moravia elaborates a database of cycling projects (planned and implemented ones), including a full information on projects, map of the regional cycle network (cycle infrastructure incl. stages of implementation, financing, objectives, monitoring etc.), activities of municipalities and micro-regions and other organisations within the region, relation of the activities to transport and tourism areas.

The regional government has an elaborated program for development of cycle route network with a minimum contact with car traffic in South Moravia region (September 2007). The document shows an implemented cycling infrastructure and needs for new facilities, esp. for cycle tourism in South Moravia Region. It also defines a system of preparation, financing, constructing and follow-up administration of projects financed from EU funding. The resulting document serves for communication among municipalities, associations of municipalities, local action groups, other subjects and the South Moravia regional government in order to overview and coordinate all the development activities for cycling transport and cycle tourism across the region and in relation to adjacent regions (for ex. monitoring, administration system and financing of cycling in South Moravia Region).

Coordination of priorities, objectives and measures, implementation is in hands of an elected regional cycling coordinator. He works at the Regional Development Department and closely cooperates with the Department of Transport. The priority of his work is to coordinate activities along international and regional cycling corridors. Therefore factuality and feasibility of the given document is ensured.

2. Other actions (Information, education, parkingpolicy, land useplanning, ...)

Cycling is promoted as both - an attractive recreation activity and integral part of tourism. For promotion of cycling, classic cycling maps and a special project "Portal of cycle tourism in South Moravia Region in connection to Lower Austria Region" that brings a complete information for visitors and tourists using cycle routes and cycle paths and related services in these regions. The project includes a web application with a searching engine for cycle routes from A to B and with connection to a web portal of South Moravia Region and accessible information in the region (tourist places of interest, accommodation, bicycle rentals and repair shops, tourist info-centres, rail stations, sport centres ...)

3. Other actions (Information, education, parkingpolicy, land useplanning, …)
The regional transport system “CYKLOTRANS” has been initiated in 2006 and enters its fourth season, continuing in its tradition for comfortable inter-modality, travelling across South Bohemia without depending on a car. A skeleton of the system is formed by seven bus lines which transfer both passengers and bicycles. The first week-end bus line starts the 20th May and is operated till the end of September every year. During vacation, the bus service supply is expanded also for work days. Conception of the transport system ensures a direct link to other bus lines, rail and water transport services.

4. Evaluation and monitoring
Counting-up of cyclists is effectuated by the foundation. The regional government has at disposal an accident analysis and yearly statistic data on accident rates elaborated by the Police.

CITY of OSTRAVA, Czech Republic	
Number of inhabitants	318.726
Area	214 km^2

Bypad report	2003
Reason for using the Bypad-tool: - To improve the bicycle policy	

Experience with the Bypad tool
"it showed us that cycling policy is not only about building cycling infrastructure but also about enhancing people and do many other actions"

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization

The committee made sessions during the BYPAD+ process. The city doesn´t have a special bicycle policy but there is a growth of bicycle infrastructure every year.

2. Infrastructure

The city has a network of about 190 km of bicycle routes. Roughly one third of the whole network is made by bicycle paths, bicycle and pedestrian paths or roads with limited access of motor vehicles. Because of the safety there are built humps in crossing of local roads and traffic lights when crossing main roads. There is an annual inspection of quality and traffic signing of bicycle routes.

Ostrava, Cycle lane

3. Other actions (Information, education, parkingpolicy, land useplanning, …)

There was made an enquiry survey about bicycle policy in town and especially before the bicycle tram was put into operation. The results of the last enquiry were positive, so the bicycle tram operated for three summer seasons. Unfortunatelly because of high cost the service was abandonned last year. Included the snaps of the bicycle tram.

Ostrava, Bicycle tram

4. Evaluation and monitoring

It´s a great pity that the results of evaluation and monitoring were not implanted in many cases. The commision stopped the activity after the BYPAD+ program had finished, the green phone line was not accepted and the only practical result was the program of safety bicycle racks located all over the city in front of public buildings.

Ostrava, Bicycle racks

CITY of SOUTHWARK, London borough, Great-Brittain	
Number of inhabitants	247.400
Area	29 km^2

Bypad report	
Reason for using the Bypad-tool: - To know were we stand - To improve the bicycle policy	

Experience with the Bypad tool
"Gave us the results and ways forwards that I was hoping for."

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization
None but we now have a cycle policy which BYPAD helped put together

2. Other actions (Information, education, parkingpolicy, land useplanning, ...)
I have been able to use the BYPAD tool to try to take forwards policy in the local authority

CITY of GAVLE, Sweden	
Number of inhabitants	68.700
Area	42 km^2

Bypad report	2006
Reason for using the Bypad-tool: - To know where we stand - To improve the bicycle policy	

Experience with the Bypad tool
"It got us going again after several years of doing almost nothing"

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization
We now have goals for cycling.

2. Infrastructure
We have spent much more money in maintaining our bicyle route network since BYPAD

3. Other actions (Information, education, parking policy, land use planning, …)
We invested in a cycle counting pollar and got a lot of positive reactions.

Gävle, Cycling counting pollar

4. Evaluation and monitoring
See above. this was both an information and a monitoring projekt.

CITY of KARLSTAD, Sweden	
Number of inhabitants	58.544
Area	30 km^2

Bypad report	2005
Reason for using the Bypad-tool: - To improve the bicycle policy - To convince others of the importance of bicycling	

Experience with the Bypad tool

"We have not done enough of cooperation between different departments and officers. The implementation of the result and the action plan has to be more communicated."

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization

2008 more money has been put on bycyle activities, a meeting will be held in september to discuss priorities.
In our transportstrategy the message is that priority will be given to cyling. A lot of suggestions on improving cyle conditions are outlined by politicians.

2. Infrastructure

Will improve because of political decisions. Officers have got orders to carry out a cycle plan at the end of Autumn 2008

3. Other actions (Information, education, parkingpolicy, land useplanning, ...)

- Land use planning: Project with house building companies and architekts and planners to increase the knowledge about sustainable planning and building focusing on sustainable traffic systems.
- Bycycle campaigns "Bike to work"

FACTS AND FIGURES

Modal split: % of number of daily trips per modus	
Walking	11%
Bicycle trips	15%
Public transport	7%
Car trips	67%

CITY of LUND, Sweden	
Number of inhabitants	76.188
Area	25 km^2

Bypad report	2004
Reason for using the Bypad-tool: - To know were we stand - To improve the bicycle policy - To be part of the BYPAD network and learn from other cities	

Experience with the Bypad tool
"We are positive to the method. We got useful proposals to take the next step towards TQM. The discussions between bicyclists, polticians and officials were very valuable also."

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization

The city of Lund has a strategy for a sustainable transport system. The strategy includes six reform areas and one of them is bicycle traffic. The reform contains hard and soft measurements to increase the use of the bicycle. The cyclists needs and demands, as well as the needs and demands of other trafficant groups, are considered in every step of planning and management. The city of Lund has goals to improve the bicycle traffic decided by the city council. They have also a local policy with reccomendation how to design the bicycle network.

2. Infrastructure

The city of Lund improves the bicycle network perpetual due to the financial resources. For example building missing links in the network, parking places, bike and rides, air pumps, safe crossings and so on. The bicycle network is divided in main and secondary bicycle passages. The main passages are always possible to use, even in winter time. The snow clearances of the main passages are prioritized in front of the roads of car traffic.

3. Other actions (Information, education, parkingpolicy, land useplanning, ...)

To encourage cycle use the city of Lund arranges different kinds of campaigns. The most important targetgroup are car drivers. The city has a bicycle map and will during the coming year introduce a bicycle journey planner on the webb. Other kinds of services are gaurded bicycle parking garages, air pumps and information about cycling and products related to cycling.

4. Evaluation and monitoring

On an annual basis the development of bicycle, pedestrians and car traffic are monitored. Every year there is an evaluation of traffic safety. The travel habits of the recidientials in the municipality are reasently investigated and a local analysis will be done during the comming months.

FACTS AND FIGURES			
number of accidents with cyclists involved			
	With killed cyclists	with seriously injured cyclists	with slightly injured persons
2003	0	17	186
2004	0	14	204
2005	1	20	201
2006	2	21	224
2007	0	10	198

CITY EINDHOVEN, Netherlands	
Number of inhabitants	210.300
Area	89 km^2

Bypad report	
Reason for using the Bypad-tool: - To know were we stand - To improve the bicycle policy	

Experience with the Bypad tool
"The level of policy was very low. BYBAD improved the policy in a new way. This new point of view let to very effectif actions and a good relationship with the local pressure groups and other planningdisciplines."

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization
- a new network for lobby groups with autorithy - new policy (2006) to improve the network, safety, comfort and speed, with an actionplan and money - new policy for parkingspace

2. Infrastructure
- more asphalt and new byciclepaths (ca. 20 km) - 25 blackspots improved to save crossings

3. Other actions (Information, education, parkingpolicy, land useplanning, ...)
innovate a highteck bycicle stand start of 'fietsvriendinnen' permanent examination routes for traffic education in schools. Free use of supervised bycicle parks payed car parks claim parking area for bycicles in building plans New priorities in program the trafficlights in favor of bycicles reduction of the carflow in the citycenter

4. Evaluation and monitoring
annual counting bycers and parked byces.

CITY of SINT-TRUIDEN, Belgium	
Number of inhabitants	37.982
Area	107 km2

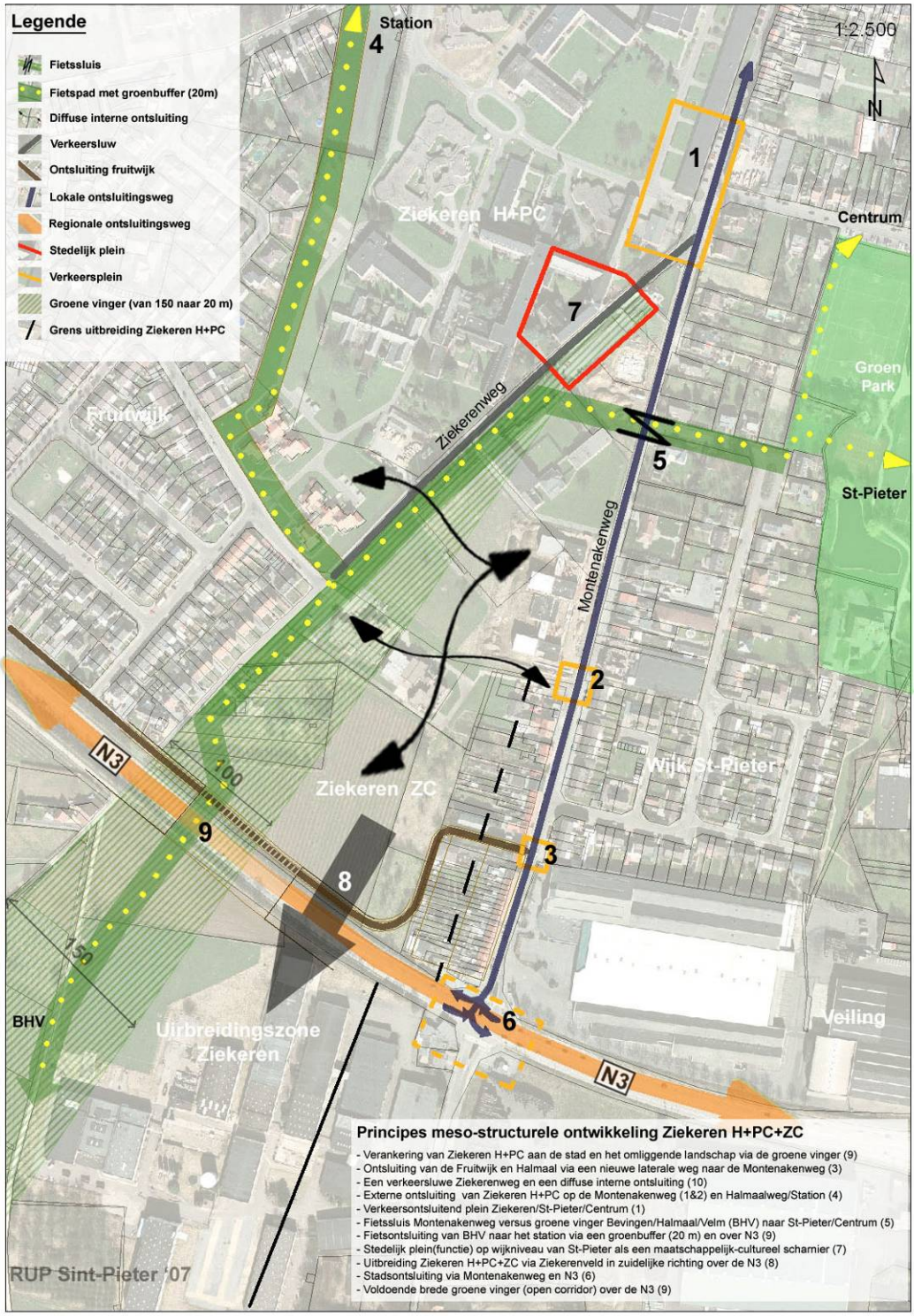
Bypad report	2006
Reason for using the Bypad-tool - To improve the bicycle policy	

Experience with the Bypad tool
"The Bypad tool revealed the difficulties of the cycle policy and showed the possibilities for improving it. However I expected more innovative alternatives."

BIGGEST IMPROVEMENTS (OR CHALLENGES) IN CYCLING POLICY

1. Planning and organization
Priority is set to the construction of a safe and pleasant connections to the city centre and the station surroundings

2. Infrastructure
We are working on a bicycle route network (in own bed) therefore we work together with private partners such as the psychiatric centre Ziekeren. (see example below)


Legende
Fietssluis
Fietspad met groenbuffer (20m)
Diffuse interne ontsluiting
Verkeersluw
Ontsluiting fruitwijk
Lokale ontsluitingsweg
Regionale ontsluitingsweg
Stedelijk plein
Verkeersplein
Groene vinger (van 150 naar 20 m)
Grens uitbreiding Ziekeren H+PC
Station
1:2.500
N
Ziekeren H+PC
Centrum
Groen Park
Fruitwijk
Ziekerenweg
Montenakenweg
St-Pieter
Wijk St-Pieter
Ziekeren ZC
N3
100
150
BHV
Uitbreidingszone Ziekeren
Veiling
RUP Sint-Pieter '07
Principes meso-structurele ontwikkeling Ziekeren H+PC+ZC
- Verankering van Ziekeren H+PC aan de stad en het omliggende landschap via de groene vinger (9)
- Ontsluiting van de Fruitwijk en Halmaal via een nieuwe laterale weg naar de Montenakenweg (3)
- Een verkeersluwe Ziekerenweg en een diffuse interne ontsluiting (10)
- Externe ontsluiting van Ziekeren H+PC op de Montenakenweg (1&2) en Halmaalweg/Station (4)
- Verkeersontsluitend plein Ziekeren/St-Pieter/Centrum (1)
- Fietssluis Montenakenweg versus groene vinger Bevingen/Halmaal/Velm (BHV) naar St-Pieter/Centrum (5)
- Fietsontsluiting van BHV naar het station via een groenbuffer (20 m) en over N3 (9)
- Stedelijk plein(functie) op wijkniveau van St-Pieter als een maatschappelijk-cultureel scharnier (7)
- Uitbreiding Ziekeren H+PC+ZC via Ziekerenveld in zuidelijke richting over de N3 (8)
- Stadsontsluiting via Montenakenweg en N3 (6)
- Voldoende brede groene vinger (open corridor) over de N3 (9)