École polytechnique de l'Université de Tours
Département Aménagement

Magistère Aménagement 3me année
Master de recherche d'aménagement du territoire 2ème année

Zona Metropolitană Oradea
La Zone Métropolitaine d'Oradea

- TRAINEESHIP REPORT -

I. SYNTHESE DES PROGRAMMES OPERATIONNELS DE LA ROUMANIE 2007 – 2013

II. PARTICIPATION A L'ELABORATION DU DIAGNOSTIC DU CADRE STRATEGIQUE

III. REFLEXION ON POOLING COMMON TRANSPORT MANAGEMENT IN THE METROPOLITAN AREA OF ORADEA

Camille DANET
Juil. – Sept. 2006

Tuteur : M. J.P CARRIERE
Maître de stage : M. C. BARNA

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Zona Metropolitană Oradea
Oradea 410100, România Piața Unirii nr. 1-3 ;
Cam.123 –124
Tel./Fax : +40 – 259 – 408 821
e – mail : zmo@oradea.ro www.zmo.ro

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PARTIE I – SYNTHESE DES PROGRAMMES OPERATIONNELS 2007 - 2013

PROGRAMME OPERATIONNEL SECTORIEL ENVIRONNEMENTAL

PROGRAMME OPERATIONNEL REGIONAL

PARTIE II – PARTICIPATION A L'ELABORATION DU DIAGNOSTIC DU CADRE STRATEGIQUE

PARTIE III – REFLEXION ON POOLING COMMON TRANSPORT MANAGEMENT IN THE METROPOLITAN AREA OF ORADEA

I . DIAGNOSIS, A DENSE BUT UNCOORDINATED TRANSPORT NETWORK

II . THE CHALLENGES OF THE TERRITORY, IMPROVE TERRITORIAL COHESION

III . PLANNING PROPOSALS, INCREASE COOPERATION BETWEEN ACTORS

1ere PARTIE :

SYNTHESE DES PROGRAMMES OPERATIONNELS 2007-2013

MISSION : Réaliser une synthèse du Programme Opérationnel Régional et du Programme Opérationnel Sectoriel sur l'Environnement.

LA STRATEGIE DU PROGRAMME SECTORIEL OPERATIONEL ENVIRONNEMENTAL 2007-2013

Préliminaire :

Le Programme Sectoriel Opérationnel Environnemental [PSO ENV] a pour objectif général d'améliorer l'environnement et la qualité de vie en Roumanie afin de promouvoir un développement durable du pays.

Le PSO ENV a été élaboré par le Ministère de la Gestion de l'Eau et de l'Environnement [MEWM, en anglais], en coordination avec le Ministère des Finances Publiques et des autorités locales, régionales et centrales. La mise en œuvre du programme est confiée à l'autorité de gestion du POS ENV qui est le Directeur Général de la Gestion des Instruments Structurels du MEWM. Le POS ENV est appliqué localement par les huit agences régionales de Développement.

Le budget total accordé au PSO ENV est de 4.900 milliards, soit 23,4% du budget du NSRF (3.960 proviennent de l'Europe et 940 du budget national).

Table 11. Allocation by year and by Fund of EU contribution to SOP ENV

- million Euro -

Fund	2007	2008	2009	2010	2011	2012	2013	2007-2013
ERDF	100	109	146	161	171	193	203	1,083
ESF	-	-	-	-	-	-	-	-
CF	209	295	389	457	483	509	535	2,877
TOTAL	309	404	535	618	654	702	738	3,960

***Remarque** : Un axe prioritaire ne peut être financé que par un fond, le Fond de Cohésion ou le Fond de Développement Régional. Les ressources issues du budget national et des Institutions Financières Internationales doivent être approuvées par le Ministre des Finances Publics. Les sommes sont indiquées en millions d'euros tout au long du rapport.*

Autres documents de référence :

Documents communautaires :

- L'Agenda de Lisbonne
- Le Cadre Stratégique Communautaire [CSG, en anglais] de la Politique de Cohésion
- La Stratégie de Développement Durable Européen (Gothenburg 2001)
- Le 6ème Programme d'Action sur l'Environnement
- La Stratégie de Développement Durable Communautaire
- Les Directives Communautaires Stratégiques pour la Politique de Cohésion 2007-2013 [Community Strategic Guidelines for Cohesion Policy 2007-2013]

- Le Projet de Régulation Européenne pour les Fonds Structurels et de Cohesion [Draft EU Regulation on Structural and Cohesion Funds]

Documents nationaux :

- Le Plan National de Développement [PND] 3ème axe prioritaire : « Protection et Amélioration de la qualité de l'environnement »
- Le Rapport Complémentaire pour la Négociation du Chapitre 22 –Environnement- en lien avec le Plan d'Application Sectoriel
- La Stratégie de Développement Durable de la Roumanie à l'horizon 2025
- La Stratégie Nationale de Gestion des Déchets
- Le Plan National de Gestion des Déchets, et le Plan Régional de Gestion des Déchets
- La Stratégie Nationale de Protection contre les Crues
- La Stratégie Nationale de Protection de l'Atmosphère

Les autres Programmes Opérationnels :

- Le Programme Opérationnel Sectoriel Compétitivité, (cf axe prioritaire 3 du POS ENV)
- Le Programme Opérationnel Régional
- Le Programme Opérationnel Sectoriel des Ressources Humaines (cf axe prioritaire 4 du POS ENV)
- Le Plan National de Développement Rural (cf axe prioritaire 4 du POS ENV)

3.2.1 AXE PRIORITAIRE 1: ETENDRE ET MODERNISER LE SYSTEME D'EAU ET DE DECHET

<table>
<tr><th>ACTIONS BÉNÉFICIANT D'AIDES</th><th>AIDE DE L'ETAT</th><th>AIDE EUROPEENNE</th></tr>
<tr><td>▪ Construction et modernisation des sources d'eau destinées à être de l'eau potable.
▪ Construction et réhabilitation des entreprises de traitement de l'eau.
▪ Extension et réhabilitation des réseaux d'eau et d'égout.
▪ Construction et extension des usines de traitement des eaux usées.
▪ Construction et réhabilitation des équipements de traitement des boues.
▪ Mesures, équipement de laboratoire, détection des fuites.</td><td rowspan="2">Condition :
Cette mesure ne peut bénéficier des aides d'Etat recensées par l'Art. 87 du Traité de la Commission Européenne.
Somme : 430,59 millions d'euros.</td><td rowspan="2">Source : Fond de Cohésion.
Somme : 2 440 millions d'euros.
Condition : l'UE cofinance au maximum 85% de l'opération.</td></tr>
<tr><td>Remarque : Les communautés désirant améliorer les infrastructures d'eau et de traitement de l'eau dans des aires géographiques bien spécifiques (bassin fluviaux)devront se regrouper.
Remarque : Dans un premier temps, la priorité sera donnée aux projets transversaux de grande envergure et aux zones urbaines afin d'amortir les importantes dépenses. Les agglomérations rurales pourront être concernées par les projets régionaux dans la mesure où ils revêtent une dimension durable et sont soucieux de l'environnement. Les fonds seront réservés en priorité aux Compagnies d'Exploitation Régionales [ROC, en anglais] afin d'amener les petits opérateurs à se regrouper. Les communes qui ne pourront être incluant dans un projet régional pourront être aidées par le PSO ENV à condition que les projets soient supportés par un acteur à même d'assurer la mise en œuvre et la maintenance du projet.</td></tr>
<tr><td colspan="3">Total : 2970,59 millions d'euros, soit près de 60% des fonds disponibles.</td></tr>
<tr><td colspan="3">Autres sources de financement possible :
▪ Fonds Nationaux pour l'Environnement,
▪ Dans le Cadre du Partenariat Privé Public.</td></tr>
</table>

3.2.2 AXE PRIORITAIRE 2 : DEVELOPPER UN SYSTEME DE GESTION DES DECHETS ET DE REHABILITATION DES « FARDEAUX ECOLOGIQUES »

Autres documents de référence :

- Le Plan National de Gestion des Déchets
- Le Plan Régional de Gestion des Déchets
- La Directive 75/442/EEC (sur la gestion des déchets)
- La Directive 99/31/EC (sur l'enfouissement des déchets)
- La Directive 94/62/EC (sur l'emballage des déchets de manière intégrée)

Actions bénéficiant d'aides	Aide de l'Etat	Aide Européenne
▪ Construction d'un nouveau dispositif municipal de traitement des déchets. ▪ Construction de centres de tri, recyclage, et composte. ▪ Achat et installation de système de collecte sélectif. ▪ Achat de véhicule de collecte des déchets. ▪ Construction d'équipement pour éviter les décharges sauvages (déchets médicaux, électriques et électroniques.. et autres déchets spécifiques comme les résidus dus à la construction et démolition).	**Condition** : Cette mesure ne peut bénéficier des aides d'Etat recensées par l'Art. 87 du Traité de la Commission Européenne si : ▪ Le propriétaire du site est une autorité publique (conseil départemental, local). ▪ Les acteurs de gestion des déchets solides ont été sectionnés selon le règlement d'approvisionnement des espaces publics. Les aides de l'état sont attribuées en fonction des Directives d'Aide Nationale pour les Régions pour la période 2007-2013 (publiées dans le journal Officiel de la Communauté Européenne n° C 54/04.03.2006). Les projets principaux seront évalués individuellement.	**Source** : Fond de Développement Européen Régional. **Somme** : 773 millions d'euros. **Condition** : l'UE cofinance au maximum 80% de l'opération.
Réhabilitation des sites inutilisés portant atteinte à l'environnement *Actuellement le Ministère de l'Environnement et de la Gestion de l'Eau prépare une méthodologie d'identification des sites pollués et des zones à risque. Le projet PHARE prépare un inventaire au niveau national des sites contaminés.*	Cette mesure ne peut bénéficier des aides d'Etat recensées par l'Art. 87 (1) du Traité de la Commission Européenne si : ▪ Le propriétaire du site est une autorité publique.	

<table>
<tr><td rowspan="2">Remarque : Dans le cadre de la réhabilitation des sites inutilisés seront privilégiés les sites oú il existe un risque de contamination du sol et des eaux souterraines. Les associations de communes seront les principales bénéficiaires de cette mesure.
Remarque : ces mesures concernent aussi bien les agglomérations urbaines que rurales, le niveau national que local, la condition majeure est d'être organisé en association. Les aides se concentreront tout spécifiquement sur la moitié des départements ou aucun projet n'a encore été réalisé.
Remarque :Le Programme PHARE délivre également des fonds pour la gestion des déchets solides.</td><td>Cette mesure peut bénéficier des aides d'Etat du traité de la Commission Européenne si :
▪ Le propriétaire ne peut être identifié ou ne peut supporter les coûts de réhabilitation.

Somme :
193,25 millions d'euros.</td><td></td></tr>
<tr><td colspan="2">Total : 966,25 millions d'euros, soit près de 20% des fonds disponibles.</td></tr>
<tr><td colspan="3">Autres sources de financement possible :
▪ ISPA
▪ PHARE
▪ Le Budget National
▪ Le Fond National de l'Environnement
▪ Le Cadre Partenariat Public Privé (concerne la construction d'équipements de traitement, collecte, recyclage, transport des déchets)</td></tr>
</table>

3.2.2 AXE PRIORITAIRE 3 : AMELIORATION DU SYSTEME DE CHAUFFAGE MUNICIPAL DANS LES ZONES PRIORITAINES

Autres documents de référence :

- Directive 2001/80/EC (tend à rapprocher les mesures environnementales des standards européens).
- Le programme « District heating 2006-2009, quality and efficiency »
- Le Programme Opérationnel Sectoriel Compétitivité [SOP Comp], (le SOP Comp finance les projets d'importance nationale le SOP Environnement se concentre sur le niveau municipal).

<table>
<tr><th>Actions bénéficiant d'aides</th><th>Aide de l'Etat</th><th>Aide Européenne</th></tr>
<tr><td>▪ Améliorer la technologie des entreprises de combustion (réhabilitation des chaudières et turbines).
▪ Introduction de la méthode BAT [Best Available Technique] pour la réduction de SO2, et des émissions de poussière.
▪ Introduction de mesure de comptage.
▪ habilitation des rejets miniers et des cendres.

Réhabilitation des réseaux de distribution d'eau chaude et de chauffage.</td><td rowspan="2">Condition :
Cette mesure peut bénéficier des aides d'Etat de la Directive d'aide nationale pour les régions dans la période 2007-2013 (journal Officiel de la Communauté Européenne n° C 54/04.03.2006).
Les projets majeurs seront analysés individuellement.
Somme : 200 millions d'euros.</td><td rowspan="2">Source :
le Fond de Cohésion.
Somme : 200 millions d'euros.
Condition : l'UE cofinance au maximum 50% de l'opération.</td></tr>
<tr><td>Remarque : Dans la mesure du possible, les projets devront promouvoir des énergies renouvelables, et si ce n'est pas possible un usage rationnel des énergies non-renouvelables.</td></tr>
<tr><td colspan="3">Total : 400 millions d'euros, soit près de 8 % des fonds disponibles.</td></tr>
</table>

3.2.4 AXE PRIORITAIRE 4 : AMELIORATION DES MESURES DE PROTECTION DE LA NATURE

Autres documents de référence :

- Les Directives européennes Oiseaux et Habitats
- L'Agence National pour la Protection des Aires Naturelles et la Conservation de la Biodiversité prévoit d'établir une Ordonnance sur le Gouvernement d'Urgence n°195/2005", d'ici la fin de 2006
- Le Plan Stratégique National de Développement Rural
- EC Regulation N° 1698/2005
- Le Programme Opérationnel pour le Développement des Ressources Humaines
- Le Programme National de Développement Rural, dans le cadre du réseau Natura 2000
- Le Programme Opérationnel Régional, dans la mesure ou le développement touristique et économique concerne des zones protégées

<table>
<tr><th>Actions bénéficiant d'aides</th><th>Aide de l'Etat</th><th>Aide Européenne</th></tr>
<tr><td>Renforcer la capacité de gestion, l'élaboration d'études scientifiques, d'inventaires (données sur l'environnement naturel et informations socio-économiques), de contrôles (proposition de délimitation des unités et de leur évaluation, cadre d'action, d'établir des cartes et d'organiser des campagnes de prévention).</td><td rowspan="3">Condition : Cette mesure ne peut bénéficier des aides d'Etat recensées par l'Art. 87 (1) du Traité de la Commission Européenne.
Somme : 37,5 millions d'euros.</td><td rowspan="3">Source : Le Fond Européen de Développement Régional.
Somme : 150 millions d'euros.
Condition :
l'UE cofinance au maximum 80% de l'opération.</td></tr>
<tr><td>Développement et amélioration de la gestion des aires protégées et des sites Natura 2000 (incluant la reconstruction écologique, développement des infrastructures : bureau, centre touristique… la conscience public, l'acquisition de terrain ayant une importante valeur écologique afin de devenir propriété publique).</td></tr>
<tr><td>Remarque : Prendre en compte la perspective de la création d'un réseau Natura 2000 et des Directives Oiseaux et Habitats.
Remarque : Une partie du programme d'éducation à l'environnement peut être financé par le Programme Opérationnel pour le Développement des Ressources Humaines.
Remarque :les gestionnaires des aires protégées, comme l'Agence Nationale pour les Aires Protégées et la Conservation de la Biodiversité peuvent bénéficier de cette mesure</td></tr>
<tr><td colspan="3">Total : 187,5 millions d'euros, soit près de 3 % des fonds disponibles.</td></tr>
</table>

3.2.5 AXE PRIORITAIRE 5: AMELIORATION DE LA GESTION DES INFRASTRUCTURES DE PROTECTION DES RISQUES NATURELS DANS LES ZONES VULNERABLES

Autres documents de référence :

- La Directive Cadre sur l'Eau 2000/60/EC (elle établit un cadre pour la protection des eaux côtières et participe aux initiatives européennes de protection contre les inondations).
- En préparation : Un Plan de Protection des rivages de la Mer Noire à l'horizon 2020, il sera établi d'ici fin 2006.

<table>
<tr><th>Actions bénéficiant d'aides</th><th>Aide de l'Etat</th><th>Aide Européenne</th></tr>
<tr><td>Construction pour prévenir les crues et réduire les conséquences des inondations.</td><td rowspan="3">Somme : 160 millions d'euros.</td><td rowspan="3">Source : Les Fonds de Cohésion.
Somme : 40 millions d'euros.
Condition : l'UE cofinance au maximum 85% de l'opération.</td></tr>
<tr><td>Développement des cartes de zones inondables.</td></tr>
<tr><td>Réhabilitation des bords de la Mer Noire atteints par l'érosion (protection des espaces naturels et sécurisation des habitations).</td></tr>
<tr><td rowspan="2">Remarque : le projet PHARE va préparer un premier avant-projet de prévention des crues, des actions complémentaires seront réalisées par le Programme Opérationnel Régional qui mettra en place des unités d'intervention.
Remarque : l'administration national des eaux roumaines pourra bénéficier de ce fond.</td><td colspan="2">Total : 279,17 millions d'euros, soit près de 5 % des fonds disponibles.</td></tr>
</table>

3.2.6 AXE PRIORITAIRE 6 : ASSISTANCE TECHNIQUE

Autre document de référence :

Article 44 du Comité de Régulation [Council Regulation] "*for each operational programme, the Funds may finance preparatory, management, monitoring, evaluation, information and control activities and activities to reinforce the administrative capacity for implementing the Funds*".

Actions bénéficiant d'aides	Aide de l'Etat	Aide Européenne
Aide à l'organisation et l'évaluation de la mise en œuvre : ▪ Aide à la réunion de Comité de Pilotage. ▪ Préparation des documents nécessaires pour la description et la justification des projets. ▪ Préparation des audits et missions de contrôle sur le terrain. ▪ Préparation des études, analyses et rapports ciblés sur le contrôle des impacts de la mise en œuvre du programme, analyse de l'efficacité de la mise en œuvre des structures, identification des faiblesses afin de formuler des recommandations pour améliorer l'efficacité de la gestion des programmes. ▪ Formation pour la mise en œuvre des projets de fond structurel pour les Autorités Organisatrices. ▪ Rémunération du personnel employé temporairement pour mettre en œuvre les taches mentionnées précédemment. **Aide à l'information et à la promotion publicitaire :** ▪ Elaboration et mise en œuvre des plans de communication et d'information. ▪ Services de consultation pour la création de matériel d'information. ▪ Services de consultation pour la création de matériel d'information, la préparation de rapport d'évaluation, développement et mise à jour du site du PSO ENV, la diffusion de l'information, des brochures… à destination du public et des bénéficiaires potentiels. **Renforcer la capacité administrative des institutions responsables du contrôle, mise en œuvre de la législation sur l'environnement.**	**Somme :** 40 millions d'euros.	**Source** : Le Fond Européen de Développement Régional. **Somme** : 160 millions d'euros. **Condition** : l'UE cofinance au maximum 80% de l'opération.
	Total : 200 millions d'euros, soit 4 % des fonds disponibles.	

LA STRATEGIE DU PROGRAMME OPERATIONEL REGIONAL 2007-2013

Préliminaire :

Le Programme Opérationnel Régional [POR] a pour objectif de réduire les disparités à plusieurs échelles. Tout d'abord, entre la Roumanie et les autres pays membres de l'Union Européenne, entre les régions les plus développées et celles en difficulté, et enfin au sein des régions elles-mêmes. C'est-à-dire entre les aires urbaines et les espaces périphériques. Les fonds sont alloués en priorité pour le développement des infrastructures économiques, la compétitivité des territoires et la réhabilitation des centres urbains. L'action du POR doit être complétée par des actions nationales, régionales et des politiques sectorielles.

Le ministère de l'intégration Européenne est désigné comme l'autorité régulatrice du POR, il est représenté par le Directeur Général du Développement régional. Le POR est appliqué localement par les huit agences régionales de Développement.

Durant la période 2007-2013, la Roumanie recevra 17,264 millions d'euros de l'Union Européenne à travers les Fonds Structurels et les Fonds de Cohésion. 3,275 millions seront alloués au Programme Opérationnel Régional. Ces fonds seront complétés par les fonds publics nationaux qui représentent 549,04 millions d'euros (soit 14,25% des fonds disponibles pour le POR) et des fonds privés estimés à 28,90 millions d'euros (soit 0,75% des fonds disponibles pour le POR). Ils se répartiront comme suit pour la période 2007-2013 :

- million euro -

Fund	2007	2008	2009	2010	2011	2012	2013	2007-2013
ERDF	229.25	330.78	442.13	524.00	553.48	582.95	612.43	3275.00
ESF	0	0	0	0	0	0	0	0
CF	0	0	0	0	0	0	0	0
TOTAL	229.25	330.78	442.13	524.00	553.48	582.95	612.43	3275.00

Autres documents de référence :

Les documents communautaires :

- L'Agenda de Lisbonne,
- Loi 315/2004 sur le Développement Régional,
- Loi 339/2004, Loi Cadre de la Décentralisation,
- White Paper – European Transport Policy,
- Joint Inclusion Memorandum,
- Les Orientations de la Nouvelle Politique de Cohésion – Emplois en Croissance 2007 – 2013,
- La Charte Européenne pour les Petites et Moyennes Entreprises,

Les documents nationaux :

- La Stratégie Nationale de Développement Régional,
- La Décision Gouvernementale 1088/2004 (insiste sur l'importance de réformer le secteur de la santé en améliorant l'accessibilité au services médicaux et en oeuvrant à accroître l'efficacité des services médicaux),
- La Stratégie Nationale de Développement des Petites et Moyennes Entreprises (Décision Gouvernementale 1280/2004),
- Loi 346/2004 (encourage le développement et le soutien aux petites et moyennes entreprises)
- Loi 350/2001 (fixe les objectifs de l'aménagement du territoire en Roumanie),
- La Stratégie Nationale de Développement du Système d'Assistance Sociale pour les les Personnes Agées 2005 – 2008 (Décision Gouvernementale 541/2005),
- La Stratégie Nationale pour la Protection, l'Intégration et la prise en charge des Personnes Handicapées 2006 – 2013 (Décision Gouvernementale 1175/2005),
- La Stratégie Nationale de Prévention des Phénomènes de Violences Domestiques (Décision Gouvernementale 686/2005),

Les autres Programmes Opérationnels :

- Programme Opérationnel sur les Transports,
- Programme Opérationnel sur la Compétitivité,
- Programme National de Développement Rural,
- Programme Opérationnel sur le Développement des Ressources Humaines.

3.2.1 AXE PRIORITAIRE 1: AMELIORATION DE L'INFRASTRUCTURE LOCALE ET REGIONALE

Autres documents de référence :

- Lois 203/2003 (souligne l'importance de développer un réseau de transport national et européen),
- Lois 84/1995 (met l'accent sur la modernisation de l'éducation),
- La Stratégie Nationale de Développement des Services Sociaux (Décision Gouvernementale 1826/2005), (Cf. Axe.3 mesure 3.2.1.2),
- Les Directives Communautaires Stratégiques pour la Politique de Cohésion 2007-2013 [Community Strategic Guidelines for Cohesion Policy 2007-2013], notamment le chapitre « More and better jobs guidelines », (Cf. Axe.3 Mesure 3.2.1.3),
- Directives Stratégiques Nationales (Ministère de l'Education et de la Recherche), (Cf. Axe.3 mesure3.2.1.3),

Actions bénéficiant d'aides	Aide de l'Etat	Aide Européenne
3.2.1.1 REHABILITATION ET MODERNISATION DU RESEAU DE TRANSPORT NATIONAL ET LOCAL	**Source et Somme** : ▪ Public : 260,07 millions d'euros. ▪ Privé : 0 **Condition :** Les aides d'Etat ne concernent que la réhabilitation des aéroports et des ports.	**Source** : ERDF **Somme** : 1473,75 millions d'euros. **Condition :** l'UE cofinance au maximum 85% de l'opération.
▪ Réhabiliter et moderniser les routes relayant les corridors de transport européen [TEN-T] au niveau national (elles sont recensées par le Programme Opérationel du Transport [POT]). ▪ Réhabiliter et moderniser les aéroports et ports régionaux et locaux non recensés par le POT. ▪ Réhabiliter et moderniser les routes nationales non recensées par le POT mais ayant une dimension intermodale et un impact à l'échelle régionale. ▪ Réhabiliter et moderniser les routes nationales et locales reliant : - les grands centres urbains entre eux, - les centres urbains et leur périphérie. ▪ Réhabiliter et moderniser les routes nationales et locales menant à des régions en difficulté économique. ▪ Réhabiliter et moderniser les routes locales se terminant en cul de sac dans les villages.		

3.2.1.2 REHABILITATION, MODERNISATION ET DEVELOPPEMENT DES INFRASTRUCTURES DE SERVICES SOCIAUX, DE SANTE PUBLIQUE ET DE SECURITE PUBLIQUE		
▪ Réhabiliter, moderniser et créer (incluant des travaux de consolidation contre les tremblements de terre) des : - Départements pour les patients non-internés et cliniques spécialisées, - Sections d'urgence dans les hôpitaux régionaux. ▪ Développer et moderniser les infrastructures accueillant les services sociaux (incluant des travaux de consolidation contre les tremblements de terre) : - Centres sociaux de réinsertion fonctionnant sur le principe d'un « one-stop-shop », c'est à dire proposant un large panel de services (sociaux, légaux administratifs, orientation, médicaux, prévention, loisir, prise en charge à la journée des personnes dépendantes), - Centres résidentiels de réinsertion. ▪ Développer la sécurité publique et les infrastructures d'urgence. Création de : - Huit hôpitaux régionaux, - Blocs opératoires.		
***Remarque** : Les bâtiments susceptibles de faire l'objet de travaux sont recensés par le Plan Stratégique de Développement. Le Plan Stratégique Régional fixe l'usage des terrains.* ***Remarque** : Les deux types de centres, le centre social de réinsertion et le centre résidentiel de réinsertion doivent être régis par la même administration.*		
3.2.1.3 REHABILITATION, MODERNISATION ET DEVELOPPEMENT DES INFRASTRUCTURES D'EDUCATION		
▪ Reconstruire, étendre et consolider les bâtiments scolaires (écoles, cantines, terrains de sport, résidences universitaires…) incluant des équipements pour les personnes handicapées. ▪ Créer des « campus éducationnels » rassemblant des activités sociales, d'enseignement, d'entraînement, récréationelles… ▪ Au total, création d'environ 480 campus et 170 « campus éducationnels ». ▪ Développer l'enseignement et les équipements spécialisés pour les personnes handicapées. ▪ Améliorer le système de chauffage et des sanitaires. ▪ Créer des formations spécialisées. ▪ Améliorer le transport scolaire (incluant des équipements pour les personnes handicapées). ▪ Moderniser les équipements et les services auxiliaires au sein des écoles (Information and Communication Technology [ICT]). ▪ Créer des salles de classe, laboratoires, équipements de base, équipements de librairie.	TOTAL : 1733,82 millions d'euros, soit 45% des fonds disponibles.	
***Remarque :** la localisation des « campus éducationnels » est déterminé par le NRSD.*		

3.2.2 AXE PRIORITAIRE 2: RENFORCER L'ENVIRONNEMENT ECONOMIQUE LOCAL ET REGIONAL

<table>
<tr><th>Actions bénéficiant d'aides</th><th>Aide de l'Etat</th><th>Aide Européenne</th></tr>
<tr><td>3.2.2.1 DEVELOPPEMENT DES INFRASTRUCTURES ECONOMIQUES SPECIFIQUES A CHAQUE REGION</td><td rowspan="3">Source et Somme :
▪ Public : 86,69 millions d'euros.
▪ Privé : 28,90 millions d'euros.

Soit un total de 115,59 millions d'euros.

Condition : Les aides de l'Etat ne concernent que la création de structures locales en fonction de la stratégie régionale et la réhabilitation des sites industriels. L'Etat accordera également des exonérations afin de supporter les initiatives des entrepreneurs locaux.</td><td rowspan="3">Source : ERDF

Somme : 655,00 millions d'euros.
Condition : l'UE cofinance au maximum 85% de l'opération.</td></tr>
<tr><td>▪ Créer et développer des structures locales en fonction de la stratégie régionale et des plans de développement (réhabilitation de la voirie interne, extension des réseaux d'énergie, de gaz, d'égout à l'intérieur du parc, réhabilitation, modernisation des immeubles dégradés, diffusion des techniques ICT, de logiciel, de matériel informatique, services de conseil).
▪ Créer des parcs industriels, scientifiques, technologiques, de business, plates-formes logistiques.
▪ Réhabiliter les sites industriels recensés par le Programme Opérationel Environnement (Réduction et recyclage des déchets, réhabilitation des infrastructures, accès à la route, voirie interne, connections aux réseaux d'eau, d'égout de gaz, d'électricité).</td></tr>
<tr><td>3.2.2.2 SUPPORTER LES INITIATIVES DES ENTREPRENEURS LOCAUX
▪ Moderniser les méthodes de production, de création, et de vente.
▪ Améliorer des équipements de production,
▪ Mise en œuvre du système IT,
▪ Améliorer du processus de production,
▪ Appliquer les méthodes et technologies innovantes,
▪ Diversifier le système de conseil aux entreprises (marketing, finance, publicité, e-business).

Remarque : Les programmes PHARE et le Programme de Cohésion 2000 financent également l'aide aux entreprises (micro-entreprises, starts-up, programmes d'entraînement et de conseils). L'Agence Régionale pour le Développement Régional, le Ministère du Développement et des Pronostiques, le Ministère de l'Intégration Européenne et les Agences de Développement Régionale mettent en place les programmes.
Remarque : La priorité sera donnée aux projets axés sur la valorisation des avantages compétitifs recensés par le programme « Développement des Régions ».</td></tr>
<tr><td></td><td colspan="2">TOTAL : 770,59 millions d'euros, soit 20% des fonds disponibles.</td></tr>
</table>

3.2.3 AXE PRIORITAIRE 3 : DEVELOPPEMENT DU TOURISME REGIONAL ET LOCAL

Autres documents de référence :

- La Stratégie Nationale pour l'Education, (Cf. Axe.3 mesure 3.2.1.3),
- Loi 526/2003 (développe le programme national de tourisme de montagne, « Superski in Carpathians »).

<table>
<tr><th>Actions bénéficiant d'aides</th><th>Aide de l'Etat</th><th>Aide Européenne</th></tr>
<tr><td>3.2.3.1 RESTAURATION ET VALORISATION DE L'HERITAGE CULTUREL ET HISTORIQUE</td><td rowspan="4">Source et Somme :
▪ Public : 86,69 millions d'euros.
▪ Privé : 0
Conditions : Seules les actions 3.2.3.3 bénéficieront d'aides de l'Etat.</td><td rowspan="4">Source : ERDF
Somme : 491,25 millions d'euros.
Condition : l'UE cofinance au maximum 85% de l'opération.</td></tr>
<tr><td>▪ Restaurer, protéger et conserver l'héritage culturel local et régional en accroissant le potentiel touristique (ex : la vieille capitale romaine, les monastères de la Dobrogea, les sites archeologiques, les forteresses médiévales… les projets doivent être traités d'un point de vue intégré, c'est-à-dire abordant l'accessibilité des voiries, la promotion….).
▪ Restaurer le centre historique et culturel des anciennes villes (restauration des éléments architecturaux traditionnels, réseau de rue, centre culturel, musée, parking…).
Prendre en compte les objectifs de l'UNESCO dans les circuits touristiques.</td></tr>
<tr><td>3.2.3.2 VALORISATION DES RESSOURCES NATURELLES TOURISTIQUES DANS LE CONTEXTE D'UN DEVELOPPEMENT SOUTENABLE</td></tr>
<tr><td>▪ Valoriser l'héritage naturel (ex : canyons, gorges, grottes, lacs glaciers) en améliorant l'accès, les sentiers pédestres, les refuges, le cyclotourisme, les équipements de sport de montagne et de bord de mer.
▪ Valoriser le potentiel touristique de montagne en construisant les infrastructures nécessaires (voiries, refuges, chemins de randonnée, pistes de ski selon les normes européennes, postes de secours…).
▪ Créer et développer les stations touristiques (incluant la restauration de bâtiments traditionnels, la réhabilitation des rues, les équipements en fonction des différentes activités touristiques et de loisir, l'amélioration du système de réservation).</td></tr>
<tr><td>3.2.3.3 AMELIORATION DE LA QUALITE DES SERVICES TOURISTIQUES, NOTAMMENT DES LOGEMENTS ET DES ACTIVITES RECREATIONELLES</td><td rowspan="2"></td><td rowspan="2"></td></tr>
<tr><td>▪ Réhabiliter et moderniser l'offre de logement (tout particulièrement les équipements des hôtels deux à trois étoiles construit entre 1975 et 1980, mais également hôtels, motels, camping, chalets, auberges de jeunesse, équipements pour les bateaux, pontons…).
▪ Créer et réhabiliter les structures de loisir touristique (piscines, mini-golfs, tennis, paint-ball…).</td></tr>
<tr><td colspan="3">TOTAL : 577,94 millions d'euros, soit 15% des fonds disponibles.</td></tr>
</table>

3.2.4 AXE PRIORITAIRE 4 : DEVELOPPEMENT URBAIN DURABLE

Autres documents de référence :

- Cohesion policy and cities : the urban contribution to growth and jobs in the regions,
- Loi 47/2006, Approbation du Système National d'Assistance Sociale,

Actions bénéficiant d'aides	Aide de l'Etat	Aide Européenne
▪ Réhabiliter l'environnement bâti : - Bâtiments dégradés (logement, réhabilitation du système de chauffage) et leur nouvelle destination, réhabilitation de l'héritage culturel, historique, industriel (friches industrielles), démolition des bâtiments dégradés sans intérêt patrimonial. - Infrastructures publiques urbaines (voirie, espaces publics, cheminements, éclairages…). ▪ Supporter l'entreprenariat local (support financier, aide au conseil, « business incubator »). ▪ Lutter contre l'exclusion sociale (chômeur de longue durée, immigrants, minorités ethniques, jeunes), investissement dans les infrastructures sociales (centres de l'enfance, maisons de retraite, centres de soin), de sport et loisir (terrains de sport, aires de loisir, centres des jeunes) d'information et de communication (accès aux nouvelles technologies), actions pour la prévention et la sécurité.	**Source et Somme :** ▪ Public : 98,25 millions d'euros. ▪ Privé : 0 **Condition** : Les actions supportant le développment des services dans le cadre de la régénération urbaine bénéficieront d'exonérations. Les actions supportant la réhabilitation des équipements publiques bénéficieront des aides d'Etat dans le cadre du SIEG, ainsi que les actions destinées au renouvellement du parc ferroviaire du Programme National d'aide aux régions.	**Source** : ERDF **Somme** : 556,75 millions d'euros. **Condition :** l'UE cofinance au maximum 85% de l'opération.
	TOTAL : 655,00 millions d'euros , soit 17% des fonds disponibles.	
***Remarque** : Privilégier une approche transversale afin d'apporter une solution à des problèmes complexes.* ***Remarque** : la priorité sera donnée aux projets de régénération urbaine des espaces dégradés à l'intérieur des centres urbains.*		

3.2.5 AXE PRIORITAIRE 5: ASSISTANCE TECHNIQUE

Programme référent :

Article 44 du Comité de Regulation (Council Regulation) "for each operational programme, the Funds may finance preparatory, management, monitoring, evaluation, information and control activities and activities to reinforce the administrative capacity for implementing the Funds".

<table>
<tr><th>Actions bénéficiant d'aides</th><th>Aide de l'Etat</th><th>Aide Européenne</th></tr>
<tr><td>3.2.5.1 SUPPORTER LA MISE EN OEUVRE, LE FONCTIONNEMENT ET L'EVALUATION DU ROP</td><td rowspan="3">Source et Somme :
▪ Public : 17,34 millions d'euros.
▪ Privé : 0</td><td rowspan="3">Source : ERDF
Somme : 98,25 millions d'euros.
Condition : l'UE cofinance au maximum 85% de l'opération.</td></tr>
<tr><td>▪ Aider les Autorités Organisatrices [AO] (y compris les coûts de personnels) à mettre en œuvre les différentes phases du POR (préparation, sélection, expertise, contrôle, évaluation et audit).
▪ Approvisionner et installer le système IT et les équipements requis pour leur mise en œuvre.
▪ Supporter le Comité d'Organisation de la Région et les comités impliqués dans la mise en œuvre du POR.
▪ Evaluer le POR (incluant les évaluations en cours).
▪ Elaborer les études.
▪ Budgétiser les dépenses pour la rémunération du personnel et des experts impliqués dans des travaux en lien avec la préparation, mise en œuvre, sélection, expertise, contrôle et audit du programme.
▪ Organiser les séminaire d'entraînement pour AO.</td></tr>
<tr><td>3.2.5.2 SUPPORTER LES ACTIVITES DE PUBLICITES ET D'INFORMATION DU POR
▪ Développer le système d'information sur le contenu du POR pour les acteurs concernés.
▪ Préparer et diffuser les informations, publicité (Documents officiels POR, manuel de procédure, bulletins, brochures, posters…).
▪ Organiser les conférences, forums, expositions itinérante, entraînement…).</td></tr>
<tr><td colspan="2">TOTAL : 115,59 millions d'euros, soit 3% des fonds disponibles.</td></tr>
</table>

2ere PARTIE :

PARTICIPATION A L'ELABORATION DU DIAGNOSTIC DU CADRE STRATEGIQUE

MISSION : Participer à la réalisation d' une analyse SWOT des villages de la Zone Métropolitaine afin de réaliser le Cadre Stratégique de Développement Durable de la Zone Métropolitaine d'Oradea**.**

GROUPE.1 : LES COMMUNES A MEME D'IMPULSER UN DEVELOPPEMENT DE LEUR REGION

1. BORS – industries et services –	
ATOUTS	**FAIBLESSES**
La population est dynamique. Il n'existe que 2% de chômeurs alors que la moyenne de la Zone Métropolitaine s'élève à 6%. La commune bénéficie d'une position géographique relativement stratégique ; elle est située sur la route nationale E 60, et est contiguë à la frontière hongroise. En outre, des bus, microbus et trains relient la commune à Oradea. Le tissu économique est conséquent ; 20% des emplois des villages périphériques se trouvent à Borş. L'activité économique est à dominante industrielle (43 %) mais concerne également les secteurs du transport (28%) et du commerce (15 %). L'équipement des résidences en réseaux est amorcé ; 78% des résidences sont reliées au réseau d'eau.	Santaul Mic et Santaul Mare sont peu reliés aux infrastructures routières ; la route desservant Santaul Mare se termine en cul de sac dans le village. L'équipement en réseaux reste imparfait. Seules 27% des résidences sont reliées au gaz, les canalisations sont inexistantes. Disparité de l'offre en équipements et services entre le noyau communal de Borş et les villages satellites de Santăul Mare et Santăul Mic.
OPPORTUNITES	**MENACES**
Approfondir le rôle de pôle industriel de Borş en développant l'offre de services aux entreprises. Encourager la diffusion du dynamisme du noyau communal de Borş vers les autres membres de la commune, Santăul Mare et Santăul Mic. Connecter les infrastructures routières locales au réseau européen. Développer le partenariat avec les autres communes hongroises frontalières afin de résoudre les problèmes d'intérêt commun. Etendre le réseau de transport au niveau métropolitain. Créer un système intégré de gestion des déchets. Elaborer un programme de gestion intégré de l'espace métropolitain.	En l'absence d'un projet de développement spatial cohérent et d'un zonage des différents types d'activités, les activités résidentielles et les activités économiques peuvent s'imbriquer et porter atteinte à la qualité de vie et la fonctionnalité de l'espace. Il existe un risque d'accroissement des disparités territoriales entre noyau communal et villages satellites. La présence des industries présente des risques en matière de préservation de la qualité environnementale. Problèmes de congestion. La non application des standards de qualité et d'environnement décrits dans la norme de certification ISO peut entraver le développement des échanges économiques.

2. SANMARTIN – tourismes et résidences –	
ATOUTS	**FAIBLESSES**
La commune se distingue par un tissu économique conséquent ; les stations balnéaires de Baile Félix et Baile 1 Mai revêtent une dimension nationale voire européenne. Sânmartin concentre désormais la plus importante part des emplois des villages périphériques (38%). Ce tissu économique est relativement diversifié (33% santé, 30% commerce et 22% industrie) mais principalement lié aux sources thermales (deux unités de soins médicaux, un service de thalassothérapie, un centre d'entraînement pour athlète, un centre d'équitation, plusieurs clubs de loisirs). La commune bénéficie d'une position géographique stratégique. Elle est située sur la route nationale E 76. En outre, elle est régulièrement reliée à Oradea par un bus qui passe environ tous les quarts d'heure. Elle est caractérisée par un forte densité de population, environ 129hbts/km², la plus forte densité parmi les villages de la Zone Métropolitaine. La population est relativement jeune ; 36% de la population a moins de 20 ans, alors qu'en moyenne les jeunes de la microrégion représentent 33% de la population. L'équipement des résidences en réseaux est amorcé ; 68% des résidences sont reliées au canalisations. La commune se distingue par sa diversité ethnique (minorité tzigane, 8%). Elle est enfin caractérisée par une image de marque liée aux stations balnéaires.	La suburbanisation non contrôlée entraîne une fragmentation du territoire. Disparité de l'offre en équipements et services entre le noyau communal et les villages satellites. Par ailleurs les villages périphériques souffrent d'une desserte routière imparfaite. Cordău et Betfia sont ainsi desservis par des routes qui se terminent en cul de sac.
OPPORTUNITES	**MENACES**
Contrôler la suburbanisation afin que le desserrement du tissu résidentiel et des activités économiques participent au développement de l'ensemble du territoire communal. Promouvoir l'image de marque des stations balnéaires afin, d'une part, attirer des investisseurs et de diversifier l'offre de services ; et, d'autre part, d'attirer un tourisme de dimension internationale.	La croissance suburbaine non coordonnée peut porter atteinte au développement cohérent et durable du territoire. D'une part, le coût des équipements peut entraver l'essor économique ; d'autre part, la disparition du cadre naturel et rural nuit à l'attractivité du territoire. Le desserrement urbain peut également nuire à la préservation des écosystèmes naturels en entraînant la fragmentation et la banalisation des espaces naturels.

Encourager la diffusion du dynamisme du pôle de service de Sânmartin vers les villages périphériques. Etendre la desserte de transport public au niveau métropolitain. Créer un système intégré de gestion des déchets. Elaborer un programme de gestion intégré de l'espace métropolitain.	Le déplacement et la concentration des ménages les plus fortunés peut enfin donner lieu à un phénomène de ségrégation spatiale. Il existe un risque d'accroissement des disparités territoriales entre noyau communal et villages satellites. La non application des standards de qualité et d'environnement décrits dans la norme de certification ISO peut entraver le développement des échanges économiques.

Borş et Sânmartin constituent les deux pôles économiques dynamiques des communes périphériques. Dans les années à venir ces deux communes devront donc dans un premier temps conforter et renforcer leur rôle de pôle et dans un second temps encourager la diffusion du dynamisme vers les villages périphériques.

GROUPE.2 : LES COMMUNES EN DIFFICULTE MAIS AYANT UN POTENTIEL CERTAIN EN MATIERE D'ATTRACTION DE NOUVEAUX RESIDENTS

PALEU et CETARIU – touristiques et résidentiels –	
ATOUTS	**FAIBLESSES**
Les communes bénéficient d'un environnement de qualité : collines, lacs, espaces naturels préservés, permettant un tourisme de proximité comme la pêche, la promenade. L'agriculture permet également de disposer de produits de qualité. Les communes se distinguent par de vastes espaces naturels et une faible densité de population. Elle s'élève à 33hbts/km², soit moitié moins que la moyenne des villages de la microrégion. Certains villages sont très proches d'Oradea ; Paleu se situe ainsi seulement à 6 km de la ville centre.	L'équipement en réseaux des communes est faible. Seule la moitié de la population de Paleu est équipée en eau et aucune résidence n'est reliée aux réseaux d'égout et de gaz. Le territoire se distingue par son manque d'infrastructure ; les routes sont principalement des voies communales ; certaines routes comme à Şuşturogiu se terminent en cul de sac. La population est relativement âgée ; 27% de la population a plus de 60 ans, alors qu'en moyenne 15% de la population de la microrégion à plus de 60 ans. Le poids de l'agriculture est important. Il s'élève à 20% selon les données statistiques du département et 95% selon le site internet de la zone métropolitaine. La différence s'explique par l'agriculture masquée. Bien que les habitants, ne soient pas recensés comme agriculteurs ils sont nombreux à subvenir à leurs besoins grâce à une agriculture de subsistance. Certains villages sont relativement éloignés d'Oradea, comme Şişterea situé à 22 km ou Şuşturogiu à 27km.
OPPORTUNITES	**MENACES**
Encourager la diversification du territoire à travers la création d'un tissu économique basé sur la création d'un réseau de petites et moyennes entreprises, et du développement de l'offre de services destinée aux nouveaux résidents. Diversifier l'agriculture de type biologique et encourager le développement d'un nouveau model d'agrotourisme. Préserver le cadre attractif rural et naturel de la commune. Contrôler la suburbanisation afin que l'arrivée des nouveaux résidents et des activités économiques participe au développement de l'ensemble du territoire communal.	La croissance suburbaine non coordonnée peut porter atteinte au développement cohérent et durable du territoire. D'une part, le coût des équipements peut entraver l'essor économique ; d'autre part, la disparition du cadre naturel et rural nuit à l'attractivité du territoire. Le desserrement urbain peut également nuire à la préservation des écosystèmes naturels en entraînant la fragmentation et la banalisation des espaces naturels. Il existe un risque d'accroissement des disparités territoriales entre noyau communal et villages satellites, et avec les communes les plus dynamiques de la Zone Métropolitaine.

Etendre le système de transport public au niveau métropolitain. Créer un système intégré de gestion des déchets. Elaborer un programme de gestion intégré de l'espace métropolitain.	Les stations balnéaires accroissent l'attractivité résidentielle et contribuent au phénomène de suburbanisation.

NOJORID – résidences et services –	
ATOUTS	**FAIBLESSES**
La commune bénéficie d'une position géographique stratégique. Elle est située sur la route de Timisoara E 79 et est proche d'Oradea (Girisu de Cris est à 5km, Cihei à 3km et Gepiu à 3 km d'Oradea). Nojorid bénéficie également de la proximité de l'aéroport. Les villages offrent un environnement naturel de qualité. Il existe de nombreux espaces boisés à Apateu, Şauaieu et Chişirid, ainsi qu'une importante surface cultivable. L'équipement des résidences en réseaux est amorcé ; 78% des résidences sont reliées au réseau d'eau. La commune dispose d'une importante surface. Avec ses 2914 ha, Nojorid représente 30% du territoire de la Zone Métropolitaine.	La commune est caractérisée par un tissu de petit village en difficulté. La desserte routière est faible. Les voiries sont en majorité des routes communales. Les routes desservant Livada, Chişirid et Şauaieu se terminent en cul de sac. La population active est relativement peu élevée. Elle ne représente que 31% de la population alors que la moyenne métropolitaine est de 58%. Les équipements sont encore largement insuffisants. Seules 3% des résidences sont reliées au réseau d'égout, aucune aux réseaux de gaz ou de téléphone.
OPPORTUNITES	**MENACES**
Contrôler la suburbanisation afin que l'arrivée des nouveaux résidents et des activités économiques participent au développement de l'ensemble du territoire communal. Encourager la diversification du territoire a travers la création d'un tissu économique basé sur un réseau de petites et moyennes entreprises, et de l'offre de services destinée au nouveaux résidents. Diversifier l'agriculture de type biologique et encourager le développement d'un nouveau model d'agrotourisme. Préserver le cadre attractif rural et naturel de la commune.	La croissance suburbaine non coordonnée peut porter atteinte au développement cohérent et durable du territoire. D'une part, le coût des équipements peut entraver l'essor économique ; d'autre part, la disparition du cadre naturel et rural nuit à l'attractivité du territoire. Le desserrement urbain peut également nuire à la préservation des écosystèmes naturels en entraînant la fragmentation et la banalisation des espaces naturels. L'absence de stratégie de développement économique coordonné à l'échelle du territoire peut entraîner le départ des petites et moyennes entreprises.

Etendre le système de transport public au niveau métropolitain. Relier l'aéroport au réseau de transport. Créer un système intégré de gestion des déchets. Elaborer un programme de gestion intégré de l'espace métropolitain.	Il existe un risque d'accroissement des disparités territoriales entre noyau communal et villages satellites.

Paleu, Cetariu et Nojorid connaissent d'importantes difficultés structurelles, mais leur patrimoine naturel et la proximité de la ville d'Oradea leur permettent d'envisager un développement basé sur l'accueil de nouveaux résidents. Cependant, pour conserver ce cadre de vie, les communes devront veiller à préserver leur patrimoine naturel et leur identité afin de favoriser un développement endogène.

GROUPE.3 : LES COMMUNES BASEES SUR UN DEVELOPPEMENT RESIDENTIEL ET SUR LA PROMOTION D'UN TISSU DE PETITES ET MOYENNES ENTREPRISES

SANTANDREI – tourismes et services –	
ATOUTS	**FAIBLESSES**
La commune bénéficie de la proximité d'Oradea. Elle dispose d'un tissu de petites de moyennes entreprises et recèle des sources thermales. Les communes sont relativement bien équipées, la majorité des résidences sont équipées en eau et gaz. L'espace communal bénéficie d'une desserte régulière des bus, environ un toutes les 20 min) La densité démographique est forte, 136 habitants au km², alors que la moyenne métropolitaine s'élève a 66 habitants au km². Accès aisé à l'anneau routier desservant le Nord Est de la commune d'Oradea. La population est relativement jeune, 36% de la population a moins de 20 ans, alors qu'en moyenne, les jeunes de moins de 20 ans de la Zone Métropolitaine représentent 33% de la population. La commune est traversée par le Crisul Repede.	Le tissu de petites et moyennes entreprises est essentiellement tourné vers l'agriculture et les produits manufacturés. Le phénomène d'agriculture cachée est également important à Santandrei. Le chômage est relativement important. Il s'élève à 10,7% alors que la moyenne de la Zone Metropolitaine ne dépasse pas 6%.
OPPORTUNITES	**MENACES**
Contrôler la suburbanisation afin que l'arrivée des nouveaux résidents participe au développement de l'ensemble du territoire communal. Encourager le regroupement des nouveaux venus dans les centres urbains afin de préserver la densité urbaine actuelle et d'optimiser l'usage des infrastructures. Diversifier l'agriculture de type biologique et encourager le développement d'un nouveau model d'agrotourisme. Coordonner l'arrivée de nouvelles activités économiques afin qu'elles impulsent un développement à l'ensemble du territoire, notamment aux petites et moyennes entreprises aujourd'hui en déclin. Mettre en valeur les sources thermales. Créer un système intégré de gestion des déchets. Elaborer un programme de gestion intégré de l'espace métropolitain.	La croissance suburbaine non coordonnée peut porter atteinte au développement cohérent et durable du territoire. D'une part, le coût des équipements peut entraver l'essor économique ; d'autre part, la disparition du cadre naturel et rural nuit à l'attractivité du territoire. La commune est alors susceptible d'adopter les caractéristiques d'une commune dortoir. Le desserrement urbain peut également nuire à la préservation des écosystèmes naturels en entraînant la fragmentation et la banalisation des espaces naturels. Un développement exclusivement résidentiel entraînerait également le départ des activités économiques actuelles qui deviendraient obsolètes et ainsi aggraver un taux de chômage déjà élevé.

OSORHEI – industries et services –	
ATOUTS	**FAIBLESSES**
La population est jeune ; 37% de la population a moins de 20 ans, alors qu'en moyenne les jeunes de la microrégion représentent 33% de la population. La densité démographique est relativement forte. Elle s'élève à 91hbts/km² alors que la moyenne des villages de la Zone Métropolitaine est de 66hbts/km². La commune bénéficie d'une position géographique stratégique. Elle est traversée par la route nationale E 60 reliant Oradea à Cluj-Napoca qui revêt une dimension européenne. Elle est également desservie par un réseau de transport routier et ferroviaire. La commune est caractérisée par sa diversité ethnique ; la minorité tzigane représente 10% de la population. La commune bénéficie enfin de la proximité du Crisul repede.	La commune est faiblement équipée en réseaux ; seules 15% des résidences sont raccordées au réseau d'eau, et aucune aux canalisations ni au gaz. Les infrastructures routières sont limitées. Certains villages comme Felcheriu ne sont desservis que par des routes en cul de sac. La commune rassemble le plus fort taux d'inactifs parmi la population de la Zone Métropolitaine. Il s'élève à 71% alors que la moyenne de la Zone Métropolitaine est estimée à 58%. La route E 60 est une source de pollution.
OPPORTUNITES	**MENACES**
Profiter de la proximité d'Oradea et de la route à dimension européenne E 60 pour créer un pôle d'offre de services aux entreprises afin d'attirer et de fixer de nouvelles petites et moyennes entreprises. Etendre le système de transport public au niveau métropolitain. Attirer de nouveaux résidents afin de redynamiser l'espace communal et plus particulièrement les villages satellites. Créer un système intégré de gestion des déchets. Elaborer un programme de gestion intégré de l'espace métropolitain.	En l'absence d'un projet de développement spatial cohérent et d'un zonage des différents types d'activités, les activités résidentielles et les activités économiques peuvent s'imbriquer et porter atteinte à la qualité de vie et la fonctionnalité de l'espace. Il existe un risque d'accroissement des disparités territoriales entre noyau communal et villages satellites.

BIHARIA – industries et services –	
ATOUTS	**FAIBLESSES**
La commune bénéficie d'un emplacement favorable. Elle est située au carrefour de la route nationale reliant Oradea à Satu Mare, et de la voie de chemin de fer commerciale traditionnelle Satu-Mare – Oradea – Arad, Marghita – Oradea. La commune se distingue par sa mixité ethnique. Il existe une forte communauté hongroise qui représente 90% de la population.	Le taux de chômage est élevé. Il atteint 10,7% alors que la moyenne de la Zone Métropolitaine ne dépasse pas 6%. Le poids de l'agriculture est important ; elle représente environ 17% de l'activité économique. L'équipement reste imparfait, seul 27% des résidences sont raccordées au réseau de gaz.

L'équipement des villages a été amorcé ; 78% des résidences sont raccordées aux canalisations. La commune est traversée par le Crisul Repede.	Les industries locales ont considérablement décru depuis 1990 notamment à travers la fermeture des fermes collectives. Le transport public local est inexistant. Il se résume a quelques trajets vers Oradea et Satu Mare.
OPPORTUNITES	**MENACES**
Attirer de nouveaux résidents afin de redynamiser l'espace communal et plus particulièrement les villages satellites. Il est possibilité de construire une station d'épuration à Tămăşeu et de contribuer ainsi à la création d'un système intégré de gestion des déchets. Connecter le réseau d'équipement et de services de la commune de Biharia à la future autoroute Transyvania afin de renforcer le dynamisme local et métropolitain. Encourager la création d'une zone d'activité regroupant des activités commerciales et d'agréments afin d'accroître l'offre de services aux particuliers et aux entreprises. Etendre le système de transport public au niveau métropolitain. Elaborer un programme de gestion intégré de l'espace métropolitain.	La croissance suburbaine non coordonnée peut porter atteinte au développement cohérent et durable du territoire. D'une part, le coût des équipements peut entraver l'essor économique ; d'autre part, la disparition du cadre naturel et rural nuit à l'attractivité du territoire. La présence de l'autoroute Transylvania rend la menace d'une commune uniquement de « transit » d'autant plus réelle. Le desserrement urbain peut également nuire à la préservation des écosystèmes naturels en entraînant la fragmentation et la banalisation des espaces naturels. Le taux de chômage peut s'aggraver et entraver le développement de l'ensemble de l'espace communal. En l'absence d'un développement endogène et de la création d'un pôle industriel et de service, la commune risque de devenir complètement dépendante du noyau urbain. Il existe un risque d'accroissement des disparités territoriales entre noyau communal et villages satellites. La non application des standards de qualité et d'environnement décrits dans la norme de certification ISO peut entraver le développement des échanges économiques.

Santandrei, Osorhei et Biharia se distinguent par un tissu d'activité aujourd'hui en difficulté. Pour réamorcer leur développement, elles doivent donc mener conjointement la restructuration de leur activité économique et la régulation du phénomène de desserement urbain qui touche l'ensemble de la Zone Métropolitaine.

3ere PARTIE :

REFLEXION ON POOLING COMMON TRANSPORT MANAGEMENT IN THE METROPOLITAN AREA OF ORADEA

MISSION : Analyse the transport network organisation at the metropolitan scale, with a particular emphasis on the bus question**.** Propose some planning solutions to reorganise the bus circulation in order to support a coherent territorial development of the whole metropolitan area.

General Introduction

Transports are essential to territorial economic, commercial, social and cultural links. It interferes with the whole organisation of society. The transport network and the dynamism of an area are closely connected. A coherent, competitive and equitable transport organisation is a major asset for the development of a territory. On the contrary, an underdeveloped or non-organized transport network will limit the attractiveness of a territory. Currently, with the liberalisation of exchanges and opening of markets, transports are increasing and facing new problems such as congestion , pollution, environmental nuisance. There is also the risk that the marginalization of peripheral spaces hampers the development of the area.

Metropolitan areas[1] *crystallize those problems. Their geographic and administrative constitution made them at the junction of all this troubles. Indeed, they have to consider both the problems of « apoplexy at the centre and paralysis at the extremes ». They constitute the main transport nodes and are, according to the Economic and Social European Comity, Metropolitan Area, « the main place for research, innovation and creation of new activities ».*

In the case of Oradea urban area, there is currently no global regulation for the transport. The transport inside Oradea is regulated by one actor, while the one going to the villages by others. No organisation supervises the whole composition. Recently, in May 2005, an organization operating at the metropolitan area has been created : Oradea Metropolitan Area (Zona Metropolitană Oradea - ZMO). The objective of this organization is to realize an integrated development of the whole area. Thus, the ZMO appears to be the proper actor to deal with the transport organisation.

The aim of this report is to consider the bus organisation question. Indeed, the bus is currently the main means of transport operating at the whole area scale. However, to consider such a question it is essential to take into account all the

[1] Metropolitan area constituted by a main town and peripheral settlements. The peripheral settlements are defined functions of the high rate of the inhabitants going daily to work in the main town. (European Economic and Social Comity, 2004).

transport organisation. In the first part, we will establish a diagnosis of the transport organisation in the metropolitan area. A specific attention will be given to the bus transport, but we will draft an overview of the other transports as well. We will identify the different poles likely to attract people and transport and the actors involved in transport. We will also evaluate the existing infrastructure and transport equipment. In the second part we will highlight the challenge of transport in the metropolitan area. What are the threats and opportunities surrounding the development of transport network ? Finally, we will formulate some proposals. We will try to consider both the very short term and the long term.

This work is more a reflexion about transport organisation, than a truly operational project. Indeed, as there is currently no operating transport policy we have to start trying to establish an overview of the problem, and to give some starting point for reflexion. During the report, we will underline the lack of precise data and advise complementary works.

I. DIAGNOSIS, A DENSE BUT UNCOORDINATED TRANSPORT NETWORK

The diagnosis will try to identify the characteristics of transport in the metropolitan area in order to underline the needs of the territory and define the different sectors of action.

First, to understand the transport organisation, the territory will be analysed from two points of view. On the one hand, we will consider the spatial composition of the territory. Where are the economic poles likely to generate work migration ? Where are the leisure and services spaces favoured by local residents or tourists ? Which settlement are already concerned with suburbanisation ? Which one can potentially attract commuters in the following years ? Those territories have different need concerning transport, identify there specificities will unable to give the proper transport solution.

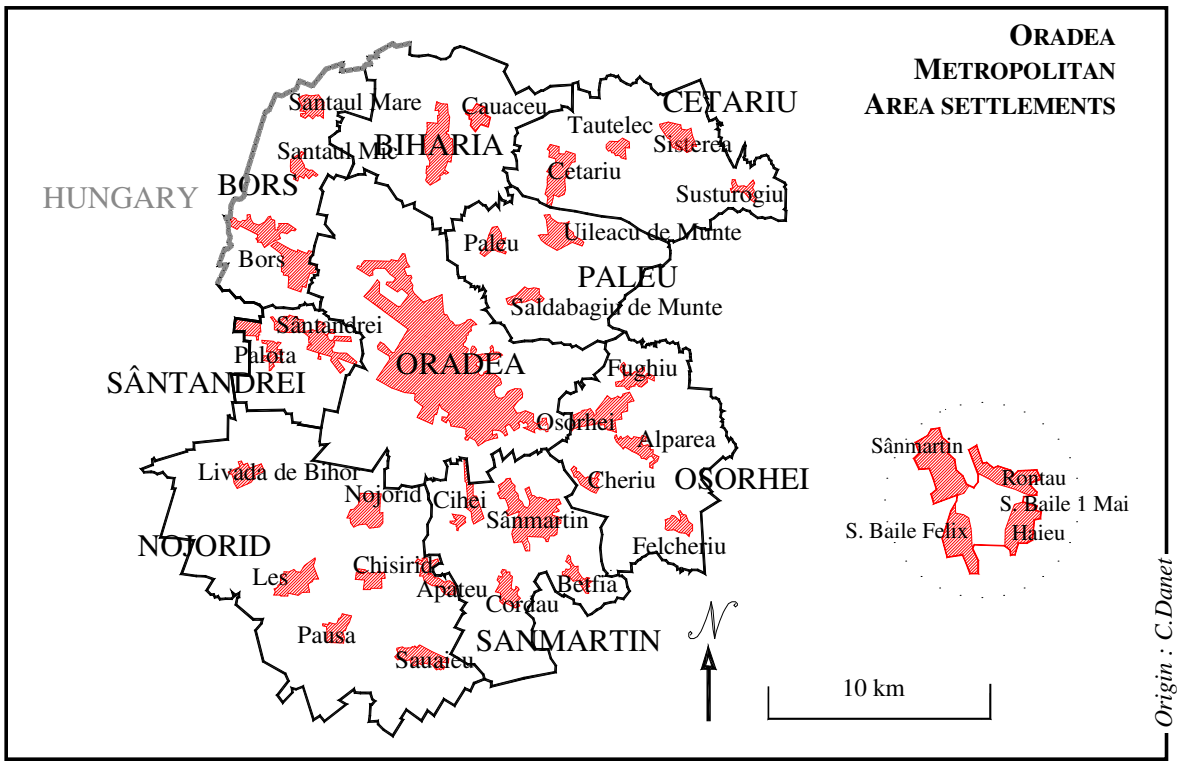
On the other hand, we will study the transport flux. We will analyse the different types of transport, the way they are organised and administered. What are the different transport means exiting in the metropolitan area ? Who decides the destination and the frequency of the trip ? In this work, we will focus more particularly on the bus transport. However, in order to draw a global vision we will also address the other means of transport. This presentation will permit to have a clearer idea of the actors involved in transport and concerned with a pooling on common transport management.

As the White Paper notices it, there is a lack of data concerning transport organisation. In Oradea, there is no data available for the last three or four years concerning bus circulation. This report will try to draft a global picture, but it needs to be completed by a more precise and detailed analysis.

A . SPATIAL COMPOSITION OF THE METROPOLITAN AREA

. GENERAL DATA

The population of Oradea is 206 463, and 239 512 in the metropolitan area[2]. Oradea Metropolitan Area is composed by 8 settlements; each of them count severals villages : Biharia [Biharia and Cauaceu], Cetariu [Sisterea, Tautelec and Cetariu], Paleu [Uileacu de Munte, Paleu and Săldăbagiu de Munte], Osorhei [Fughiu, Catunul Fremei Osorhei], Osorhei, [Alparea Felcheriu and Cheriu], San Martin [Sânmartin, Ciheiu, Rontau, Baile Felix, Statiunea 1 Mai, Haieu, Betfia, Cordau], Nojorid [Nojorid, Les, Pausa, Chisirid, Apateu, Sauaieu, Livada de Bihor], Sanandrei [Palota and Santandrei]and Bors [Santion, Bors, Santaul Mic, Santaul Mare].



[2] According to the Anuarul statistic ZMO, 1st January 2005.

. ORADEA, THE ATTRACTION POINT OF TRANSPORT

Oradea has a large influence on the metropolitan area. It has 86% of the population, and contains the main economic, social and cultural amenities. Oradea plays a role not only at the local scale but also at the regional and national level as the second town[3] of the North-West region.

At the local level, the influence of Oradea is explained firstly, by the presence of the universities. Oradea university has an old tradition, and developed itself fully in the last fifteen years (analysis SWOT of the Regional Operational Programme, ROP). From now on there are seventeen faculties, five colleges and five research centres. Oradea concentrates also a big part of the economic life of the metropolitan area. According to the "Anuarul statitic ZMO 2005", in 2004, the town counted 92% of the work force of the metropolitan area. Indeed, the town has a big industrial role ; industry represent 36% of the activities. The main industries are : textile industry, engineering industry, building trade, food industry, processing industry, transportation, communication. Oradea is also a commercial and financial centre. Nowadays, a few representations of international banks are present : ABN – AMRO Bank, ING Bank, Volksbank or HVB Bank. Moreover, Oradea has an important cultural and leisure role. The city holds the State Theatre, the State Philharmonic and the Arcadia Theatre. Finally, it also had some interesting architecture building mixing baroque, classicism, secession styles.

Oradea is a regional centre, consequently, from a transport point of view the town will have to deal with different types of circulation corresponding to different territorial scale.

- **Transit** circulation : The city is concerned by transit circulation, first because the city is one of the regional centre of North-West region, and secondly, because of the road traffic coming from the Hungarian border.

- **Exchange** circulation **:** The second flux is exchange circulation, it mainly happens at the metropolitan scale. It concerns the daily trip of the inhabitants of the peripheral settlement coming to work, or to use some health, administrative or leisure service in Oradea.

- **Internal** circulation **:** The last flux occurs at a smaller scale, the town scale, and is called internal circulation. Most of the time, it represents the biggest part of the circulation. It also include the work, leisure and health reasons.

[3] After Cluj-Napoca, which has 298,006 inhabitants (the Regional Operational Programme 2007-2013)

All those circulations are closely connected. To act on the bus transport organisation at the metropolitan scale, that is to say the « exchange circulation », it is essential to consider the transit and internal circulation at the same time.

The peripheral space is not an homogenous space, we will now try to identify the characteristics of those peripheral settlements.

. THE PERIPHERAL POLES, BORŞ AND SÂNMARTIN

Besides this regional centre there are some dynamic poles. The metropolitan area counts two main peripheral poles : an economic pole, the settlement of Borş ; and a health and leisure pole : the thermal bath of Sânmartin.

Borş is a boundary settlement situated along the hungarian boundary. The village is on the side of the national road DN 1 – E 60 which connects the country to one of the main international road in Central and Western Europe. Consequently, the town constitutes an interesting place for companies. According to the Statistic Book of the ZMO, Borş employs 20% of the workers of the villages including in the metropolitan area. 40% of them are employed in industries, 26% in activities link with transport, and 14% in commerce. The settlement draws its strength from his position. In order to preserve this geographical asset, it will have to enhance its accessibility and the flowing of the circulation.

The second pole, Sânmartin, is also concerned with preserving accessibility but for different users : the local residents and tourists. It is a leisure, sport and health place which have grown up by exploiting its thermal bath resources. Among the villages, Sânmartin is the first work place, it counts almost 40% of the people working in the villages. The activities depend mostly on the thermal sources. There are two medical centres, a thalassatherapy centre, a training centre for athlete, an equitation centre and several others sport clubs. Nowadays those activities have a national dimension. In order to preserve the attractiveness of the place, the settlement needs to offer a good accessibility and regular common transport with Oradea. Considering the specific role of health care centre, it would be important to consider the transport of disabled people.

. THE SURBANISATION, MAIN PHENOMENA OF THE SURBAN SPACE

The other villages are characterised by two economic recomposition phenomena. On the one hand, the desindustrialisation and the privatisation and abandon of the common agricultural farm and, on the other hand, the suburbanisation phenomena.

First, the villages are mainly characterized by limited economic activities. It is composed by local small and medium companies which have difficulties to

modernize, but also by some foreign companies such as Italian shoes fabric in Nojorid. Moreover there is an important part of subsistence agriculture. So they will have to diversify and modify the resources in the coming years.

According to the economic and urban cohesion concept of the metropolitan area the settlement can adopt several scenarios. Some settlements such as Nojorid, Paleu, and Cetariu should take advantage of the urban sprawling phenomena. They can focus on the welcome of new residents and to develop their service offer. For example Nojorid, which is really close to Oradea is already concerned with the suburbanisation process. For Paleu and Cetariu, the process has not started yet. However their natural and preserved environment, make the territory attractive for residents.

PALEU, A QUALITY ENVIRONMENT ►

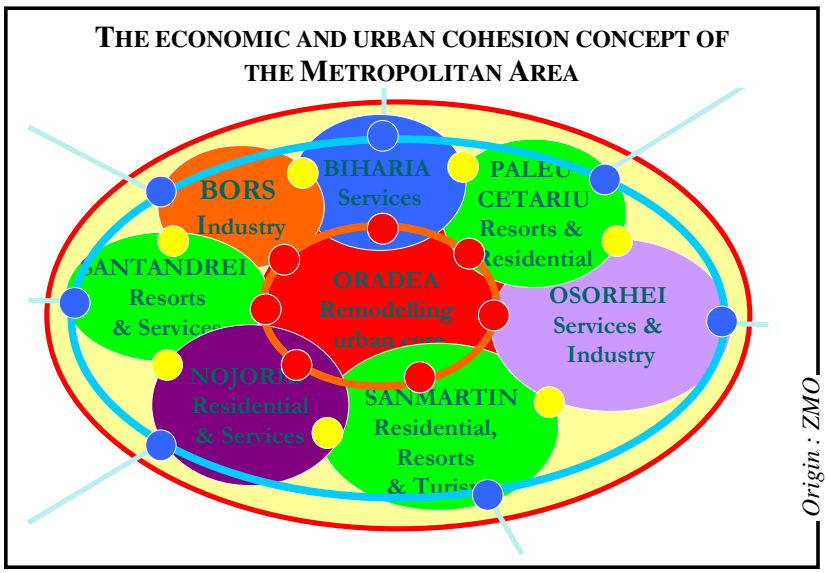
▲

THE BEGINNING OF SUBURBANISATION IN NOJORID

Origin : C.Danet

Other, such as Osorhei and Biharia should valorised their strategic geographic situation and try to develop the industry and service dimension. Of course, the settlement should not be specialized in a single activity. For example Sânmartin is not only an economic pole, it has a quality of life and a service offer which also attracts new residents.

Those new orientations will modify the population composition and generate more need of transport. Consequently, the transport organisation will have to take into account the territorial orientations of the metropolitan area. The orientations are summarised in the following scheme.



In the coming years the metropolitan area will have to face the difficult challenge to preserve the growth of the town of Oradea as a motor of the regional development, to support the development of the tourist and economic poles, and to hold up the development of the peripheral villages. The transport is an important element in this work. Indeed, it influences the economic dynamism and attractiveness of the main town, and enables to link it with the peripheral spaces. What is more, the transport reform will be the more sensible as the town is actually sprawling and the city and villages economies are becoming more and more connected.

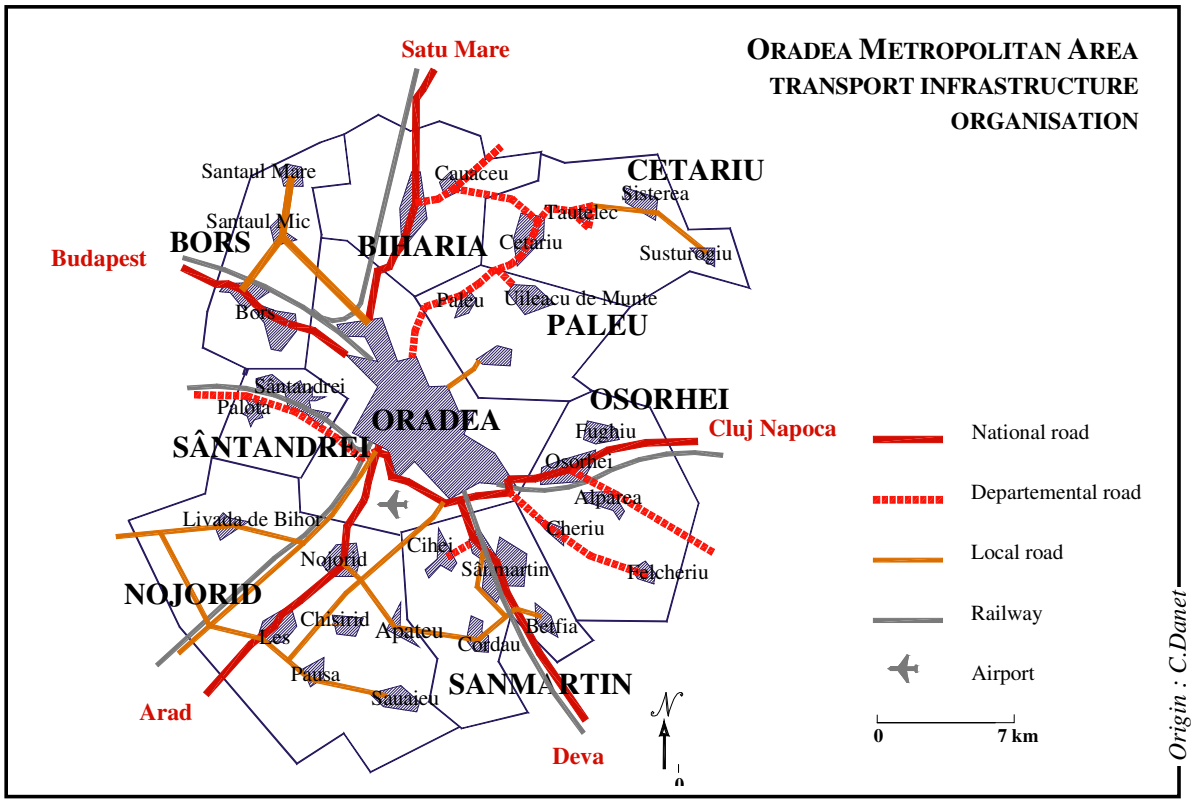
In a second part, we will studying the existing offer of transport ; in order to understand how can metropolitan area respond to those different transports.

B . NUMEROUS BUT INADEQUATE INFRASTRUCTURE

This report focuses on the current offer of bus transport. Nevertheless, working on transport organisation implies to consider the whole transport offer. Indeed, it is useless to modify bus organisation if it is not coordinated with the schedule of train or urban transport such as tramways or taxis. That is why, this part will try to draw a global situation of transport in the town. It will be divided into two parts. The first one will analyse the different transport infrastructure available. Then, in the second part we will sum up the means of transport, with a particular attention given to the bus situation.

B 1 . Transport infrastructure

The transport of Oradea Metropolitan Area are characterized by a large variety of transport means but also by the inheritance of an inadequate infrastructure network.



. ROADS

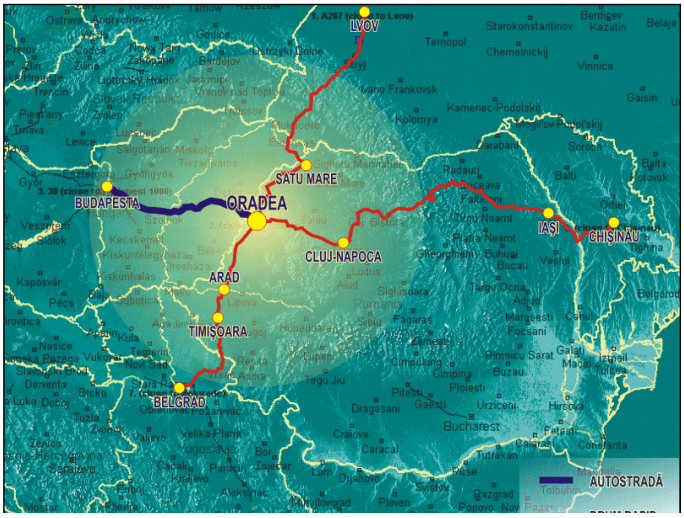
Oradea is one of the road gate of Romania, and one of the important road network of the western part of Romania. The urban roads of Oradea has developed as a typical radial system with most main roads going to the city centre. Five national and international roads meet in Oradea. Among them, three have a european dimension :

- Oradea – Bors, towards Budapest in Hungary,
- Oradea – Satu Mare, towardss Lvov in Ukraine,
- Oradea – Arad, towardss Belgrade in Serbia.

The other two are national roads :

- Oradea – Deva, towardss Bucharest,
- Oradea – Cluj Napoca.

ORADEA METROPOLITAN AREA, AN INTERNATIONAL CONNECTING POINT



Origin : ZMO

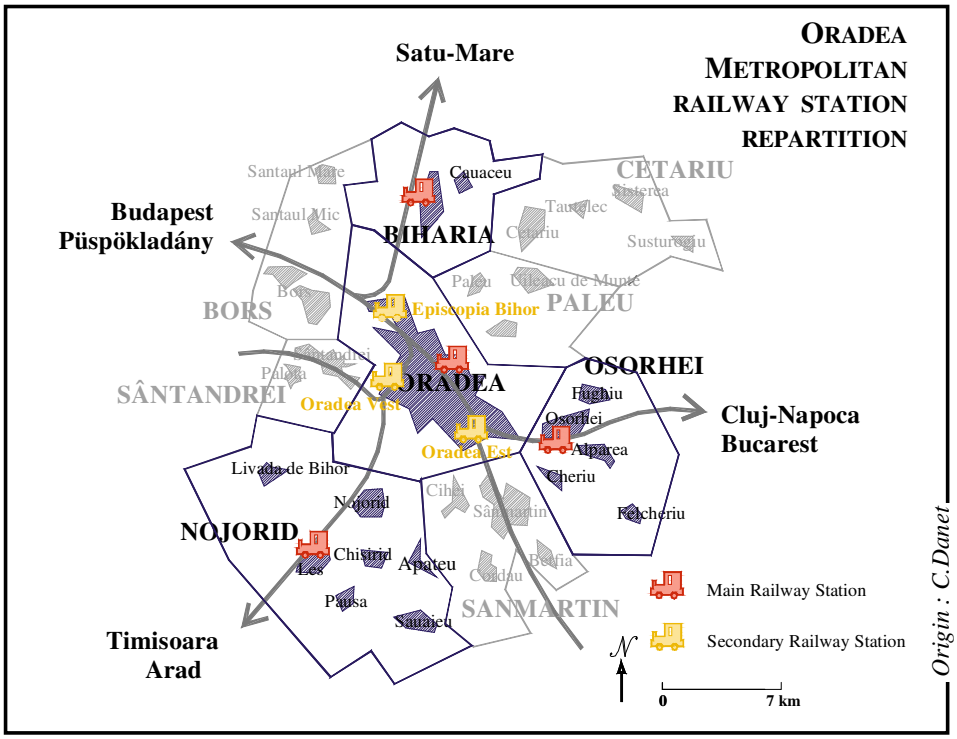
None of the roads belong to pan-European corridor. Nevertheless, they are all characterized by a high and diversified traffic. They are serving international, national and regional traffic which goes through or closely to the city centre. What is more, there are several roads planed for the future. First, the Romanian government has a project of a motorway linking Oradea to Bucharest through Brasov and Cluj-Napoca for 2008. Secondly a ring road is in project (Cf Annex A).

. RAILWAY

Railway infrastructure are many in Oradea Metropolitan Area. It is present both in Oradea because the town is an important railway junction and in the village scale. Indeed, three of the villages of the metropolitan area are connected to Oradea.

First, the town of Oradea is an important train node, it connects Romania and other European countries. It is one of the path to reach Hungary. There are four railway stations in the town, a main one, and three peripheral. The main one, the central railway station links Oradea with the main Romanian and Hungarian towns. The lines run from Oradea to Brasov, Cluj-Napoca and serve Bucharest at the east, to Timisoara and serve Arad at the South, serve Satu Mare at the North and Budapest at the West. The three peripheral railway stations, Episcopia Bihor (now included in the administration delimitation of the town of Oradea), « Oradea Vest » (Oradea West), and « Oradea Est » (Oradea East) are situated on the outskirt of the city, near the residential districts. They are used by local and regional trains and are devoted to the local circulation. All the trains going through those railway stations come first from the central railway station.

Secondly, there also are railway stations in the villages of the metropolitan area. Three settlements are linked to Oradea with railway connections : Biharia, Leş (belongs to Nojorid settlement) and Oşhorei. They are between four and six connections a day.



Hours of circulation	00:00 - 04:30		04:30 - 08:00		08:00 - 13:00		13:00 - 17:00		17:00 - 24:00		**Nb. of courses**	
Way of circulation	Oradea → Villages	Oradea ← Villages	Oradea → Villages	Oradea ← Villages	Oradea → Villages	Oradea ← Villages	Oradea → Villages	Oradea ← Villages	Oradea → Villages	Oradea ← Villages	**coming from Oradea to the villages**	**coming from the villages to Oradea**
BORS												
BIHARIA												
Biharia	1			1	1	1	1		1	3	4	5
NOJORID												
Leş			2	2	1	3	2	2	1	1	6	8
OSORHEI												
Oşorhei			1	1		1	2		1	2	4	4
PALEU												
SANMARTIN												
SANTANDREI												
ORADEA												
Episcopia Bihor	1		1	1	1	1	1		2	5	6	7
Oradea Est			1	1		1	2		1	2	4	4
Oradea Vest			2	2	1	3	2	2	1	1	6	8
Nb. of courses	**2**		**7**	**8**	**4**	**10**	**10**	**4**	**7**	**14**	**30**	**36**

Although railway represents a high share of modal shift, the railway network is under-used. Compare to the EU 15, EU 25 and EU 27 the rail passenger-km per inhabitant per year is rather low in Romania (Sectoral Operational Plan of Transport, SOPT). The development of the peripheral railway stations towards the villages could be an alternative to develop the existing infrastructure while increasing the transport offer of the metropolitan area and using an environment friendly means of transport.

However, to implement such a project the peripheral railway stations must be developed and the infrastructure rehabilitated. Indeed, train infrastructure are now declining, the infrastructure suffers from a chronic lack of maintenance and modernization. For example, none of the lines are electrified

Consequently, the town will have to establish priorities in railway infrastructure rehabilitation. As the White Book noticed it, the share of railway was considerably high. It is not be possible to maintain the situation. The development of this peripheral railway stations is a long term project. From now on, the number of commuters may not be sufficient to justify such an investment, however it could

interesting to keep the possibility to do it, and to preserve land space around the peripheral railway stations to develop a real intermodal point in the future.

. AIRPORT

Oradea has one of the 17 airports currently operating in Romania. Oradea International Airport is located in Nojorid, 5 kilometres from the city centre. According to the Sectoral Operational Programme of Transport it served 29 000 passengers in 2005. More than two third of them were intern flights. There is domestic flights to and from Bucharest and Timisoara, and international flights to from several cities in Italy and Germany[4].

The development of the airport of Oradea is a difficult question. Indeed, according to the report of European Commission about intermodality (Dortmund, October 2004) the regional and secondary airports have not had much focus placed on them as a national gateway airport. One reason may have been a limited passenger traffic and revenues generating potential to justify investment. In addition, County Council controlling regional airports may not have had available resources for capital investment in recent years. As the regional airports are numerous, most of them have limited traffic bases or growth prospects. In the case of Oradea, the presence of airports in Cluj-Napoca, Timisoara, Arad and Debrecen (Hungary) reduce the catchment area of Oradea's airport. What is more, the connection between the airport and the town has been identified as insufficient in the Departmental Development Plan.

According to the Sectoral Operational Programme of Transport and the White Paper, the post-socialist countries are characterized by a high heritage of infrastructure, but also a low quality of the road and rail track. Most of them need to be rehabilitated and modernized.

[4] http://www.romaniatourism.com/oradea.html

B 2 . The different means of transport

. CARS

In the metropolitan area, the automobile traffic is important and can be expected to grow in the next few years.

According to the Sustainable Development Local Plan, there is one car per five inhabitants. It is a high rate considering the national average. Indeed, the Sectoral Operational Plan of Transport (2006) estimates the Romanian average at 136 cars per 1000 inhabitants.

According to the Sectoral Operational Plan of Transport, Romania is characterised by a rapid increase in private vehicle ownership. In the early 90s, the road traffic of Romania has grown at 2,3% per year, and at 3,7% per year since 2000. The process is similar for goods transport. The candidates countries currently export five times more, than right after the transition. Consequently, it can be expected to keep on growing in the next years. The White Paper notices that if, on the one hand, the motorisation rate is about to stabilize in the Western European countries, on the other hand, it can be expected to increase in the candidate countries, but alarmingly, in accelerated manner. Indeed, the development of financing schemes (leasing and bank loans) has boosted the purchase of new cars.

The downtown of Oradea already has to face congestion problem. This likely rapid growth implies a total review of urban car use, the establishment of a car parking control system and the strengthening of the urban public mass transport system.

. URBAN COMMON TRANSPORT

The urban transport is guarantee by Oradea Local Transport Autonomous Department - OTL - (Regia Autonoma de Transport Local Oradea). OTL represents the organisational body of the city hall concerning transport. They formulate policies, routes and schedules. Once the programme is established, the City Hall has to validate it. Then, OTL is in charged with the application, the management of programme investments, controlling services and organising public transport services.

OTL is in charged of 40 unities of tramway, which represents three routes ; 30 bus, which represents nine routes, and also 50 unities of trolleybuses et 20 microbuses.

The microbuses are common transport. They are working close to taxis. It is made by minibus which ride on a predetermined trip and stop when the passengers ask, like taxis. For the long ride, it is possible to make a phone reservation. Those microbuses are able to keep a flexible transport offer in low populated areas or to provide transport in the night hours.

. TAXI

The taxis are a developed means of transport. In Oradea there is 600 registered taxis. They cost usually around 0,70 lei, that is to say 0,25 euros for one kilometre. For the people who choose to share the price, an inner town ride can be close to a common transport ticket.

What is more, in parallel with the traditional taxis there is a lot of non-official taxis.

B 3 . Unequal intermodal shift

There are no local data on the modal share of transport. However, if we consider the national data, the car modal share has largely increase in the last fifteen years. In 1990, it represented 38% of the whole transports and now it accounts for 75%. Consequently, the common transport has decrease. Putting together, the train and the public road transport went from approximately 62% in 1990, to 25% in 2004.

Table 1-28 Passenger transport performance and modal share

	1990		1995		2000		2004	
	M pass km	share	M pass km	share	M pass km	share	M pass km	share
Passenger cars	33,595	38%	44,774	59%	45,422	70%	53,840	75%
Public road transport	24,007	27%	12,343	16%	7,700	12%	9,438	13%
Railway	30,582	35%	18,879	25%	11,632	18%	8,638	12%
Total	88,184	100%	75,996	100%	64,754	100%	71,916	100%

Source: SWK Consortium, TA to MTCT, 2006 estimate (passenger cars) and National Institute of Statistics

To conclude we can say that there is a dense but inadequate infrastructure network. The means of transport are many and varied : train, trolleybus, planes, taxis, microbuses or cars. To reorganise the bus network it will be essential to take into account those different way of transport. However, transport have to face two mains problems. First, the infrastructure needs to be rehabilitated and modernized. Secondly, the intermodal shift is unbalanced. The car modal shift is becoming higher and higher. As we have drawn an general overview of transport situation, we will now focus more especially on the bus network.

C . THE BUS NETWORK

The bus transport is the main means of transport operating at the metropolitan scale. But from now on, there is no referent actor concerning the transport in metropolitan area. The actors involved in of transport management at the metropolitan area are numerous and fragmented. We will try to identify them and to define the actual transport offer.

C 1 . Authorities and their responsibilities

In the metropolitan area, the actors can be divided into two different categories. On the one hand the manager and, on the other hand, the operators.

First, the Romanian Authority Road Agency (Agencia Romonia Autoritatea Rutiera) is in charged with the management of the common transport. They are the departmental representatives of the Ministry of Public Works, Transport and Housing. The Ministry defines the needs in terms of networks development and organisation of the transport operation. The Romanian Authority Road Agency applies his decision at the departmental scale. They sell the routes to private companies and choose them according to quality of the private company bus, the percentage of accident, fee or reclamation. They are also responsible for the controls.

C 2 . Transport management

. LIBERALISATION OF THE ACTORS

In the last fifteen years the legal framework for transport services was redefined. Before 1990, there was only two operators : Oradea Local Transport Autonomous Agency who used to operate the whole metropolitan area[5], and the INTRANS company who was in charged of the whole department area. In 1990, the transport are privatised, and only the town of Oradea remains in the public domain. The state relinquished the villages of the metropolitan area and the whole department management, and transferred it to private companies.

The process took a little time to occur. In Oradea, OTL keep on managing the bus circulation of the metropolitan area's villages until the beginning of the 2000's years. They stopped to operate in Nojorid, Osorhei and Palota in 2001 and Statiunea Baile Felix and Statiunea 1 Mai in 2003.

[5] At this moment Oradea Metropolitan Area did not exist yet as an administrative and project territory, however the public actors had already recognise the importance of managing the transport of this space in an integrated way.

EVOLUTION OF THE TRAMWAY AND BUS UNITY OF OTL BETWEEN 1994 - 2005					
Year	Tramway	Bus			Sum total
		Town routes	Peripheral villages routes	Sum total	
1994	47 482 485	18 617 996	4 674 924	23 292 920	**70 775 405**
1995	48 069 276	18 084 102	4 813 303	22 897 405	**70 966 681**
1996	49 707 589	18 429 010	4 498 836	22 927 846	**72 635 435**
1997	37 928 810	15 186 356	4 735 885	19 922 241	**57 851 051**
1998	30 810 141	11 944 455	2 889 091	14 833 546	**45 643 687**
1999	28 948 446	11 838 334	2 780 516	14 618 850	**43 567 296**
2000	27 997 460	12 087 485	2 835 455	14 922 940	**42 920 400**
2001	32 817 239	16 521 235	2 117 719	18 638 954	**51 456 193**
2002	38 102 549	21 883 733	916 285	22 800 018	**60 902 567**
2003	39 521 974	22 914 701	1 662	22 916 363	**62 438 337**
2004	41 043 851	26 828 239	0	26 828 239	**67 872 090**
2005	37 760 046	23 078 045	0	23 078 045	**60 838 091**

Consequently, since 2004, the totality of transport of the metropolitan area is guaranteed by private companies. Currently, there are nine companies operating on the territory :

- **Merelu Trans SRL** : Oradea – Santau Mare ;
- **Acular Com** : Oradea – Cordau, Oradea – Baile Felix, Oradea – Baile 1 Mai, Oradea – Nojorid, Oradea – Livada, Oradea – Betfia, Oradea – Osorhei, Oradea – Palota ;
- **Intrans** : Oradea – Cetariu ;
- **Ovis Tour** : Oradea – Cordau, Oradea – Baile Felix, Oradea – Baile 1 Mai, Oradea – Livada, Oradea – Sauaieu, Oradea – Nojorid, Oradea – Palota, Oradea – Santandrei, Oradea – Osorhei ;
- **Sabmar** : Oradea – Santandrei ;
- **Dunsoara Trans** : Oradea – Cheriu, Oradea – Felcheriu ;
- **Tesan prest SRL** : Oradea – Baile Felix, Oradea – Baile 1 Mai, Oradea – Nojorid, Oradea – Cordau, Oradea – Santandrei, Oradea – Osorhei, Oradea – Palota ;

- **Dorycor Tours SRL** : Oradea – Cordau, Oradea – Baile Felix, Oradea – Baile Felix, Oradea – Osorhei ;
- **Belmondo Impex** : Oradea – Cihei.

. SCHEDULE AND FREQUANCY OF THE CIRCULATION

The difficulty with this change of actor is the continuity in data control. When OTL was in charged of the transport, they regularly controlled the frequentation of the bus, the efficiency of the service (delay, complain, accident…). But now, the private companies do not have to pursue such a control. The only data available are the schedule of the bus. So, in a first time we tried to compare the evolution of bus circulation in the metropolitan area. Does the change of actor influence the offer of buses ? Are the spatial recomposition of the territory such as suburbanisation obvious in the current offer ?

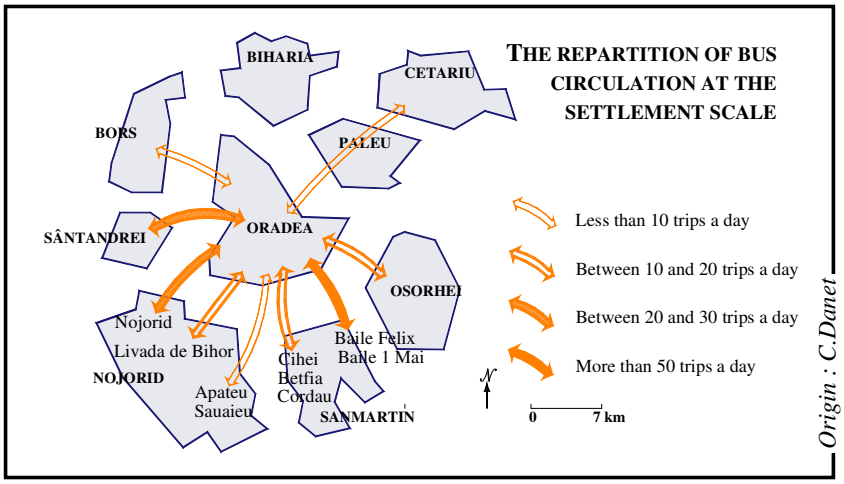
Settlements	2000		2002		2005	
	Working day	**Non working days**	**Working day**	**Non working days**	**Working day**	**Non working days**
BORS						
Santăul Mare					**6**	**3**
Borş					**6**	**3**
Sântion						
Santăul Mic					**?**	**?**
BIHARIA						
Biharia						
Cauaceu						
CETARIU						
Cetariu					**8**	**8**
Tăutelec						
Şişterea					**8**	**8**
Şuşturogiu						
NOJORID						
Nojorid	**11**	**5**	**13**	**5**	**25**	**12**
Leş						
Livada de B.	**5**	**0**	**9**	**4**	**15**	**10**
Apateu					**2**	**0**
Chişirid						
Pauşa						
Şauaieu					**4**	**0**
OSORHEI						
Oşorhei	**8**	**0**	**8**	**0**	**17**	**4**
Alparea					**16**	**4**
Cheriu	**4**	**0**				
Felcheriu	**8**	**3**	**8**	**2**	**16**	**4**
PALEU						
Paleu					**?**	**?**
U. de Munte						
S. de Munte						
SANMARTIN						
Sânmartin						
Cihei	**4**	**0**			**13**	**7**
S. Băile Felix	**45**	**34**	**45**	**34**	**90**	**34**
S. Băile1Mai	**21**	**15**	**26**	**15**	**48**	**34**
Cordău	**4**	**0**			**13**	**7**
Rontău						
Haieu						
Betfia	**4**	**0**	**0**	**0**	**14**	**6**
SANTANDREI						
Sântandrei	**5**	**0**	**0**	**0**	**31**	**0**
Palota	**12**	**3**	**0**	**0**	**23**	**0**

Settlements	Working days					Non working days		
	04:30 08:00	08:00 13:00	13:00 17:00	17:00 23:00	Nb. of courses	05:00 13:00	13:00 - 22:30	Nb. of courses
BORS								
Santăul Mare	1--50	0	1--150	0	**6**	3—480	0	**3**
Borş	1--50	0	1--150	0	**6**	3--480	0	**3**
Sântion								
Santăul Mic								
BIHARIA								
Biharia								
Cauaceu								
CETARIU								
Cetariu	1--60	0	1--60	0	**8**	1--45	1—45	**8**
Tăutelec								
Şişterea	1--60	0	1--60	0	**8**	1--45	1—45	**8**
Şuşturogiu								
NOJORID								
Nojorid	1--30	1--30	1--30	1--30	**25**	4--480	1--45	**12**
Leş								
Livada de Bihor	1--30	1--150	1--30	1--60	**15**	1--30	1--120	**10**
Apateu	1--210	0	1--210	0	**2**	0	0	**0**
Chişirid								
Pauşa								
Şauaieu	1--120	0	1--60	0	**4**	0	0	**0**
OSORHEI								
Oşorhei	1--30	0	1--30	3--360	**17**	1--420	3--480	**4**
Alparea	1--30	3--360	1--30	4--360	**16**	2--420	2--480	**4**
Cheriu								
Felcheriu	1--30	3--360	1--30	4--360	**16**	2--420	2--480	**4**
PALEU								
Paleu								
U. de Munte								
S. de Munte								
SANMARTIN								
Sânmartin								
Cihei	1--30	2--360	1--30	2--360	**13**	4--420	2--480	**7**
Staţiunea Băile Felix	2--15	1--15	2--20	1--15	**90**	1--15	1--15	**34**
Staţiunea Băile 1 Mai	1--15	1--15	1--15	1--15	**48**	1--15	1--15	**34**
Cordău	1--30	1--360	4--210	2--360	**13**	4--420	0	**7**
Rontău								
Haieu								
Betfia	1--30	1--360	4--210	3--360	**14**	4--420	2--480	**6**
SANTANDREI								
Sântandrei	1--20	1--20	7--210	0	**31**	0	0	**0**
Palota	1--30	5--360	1--30	4--360	**23**	0	0	**0**

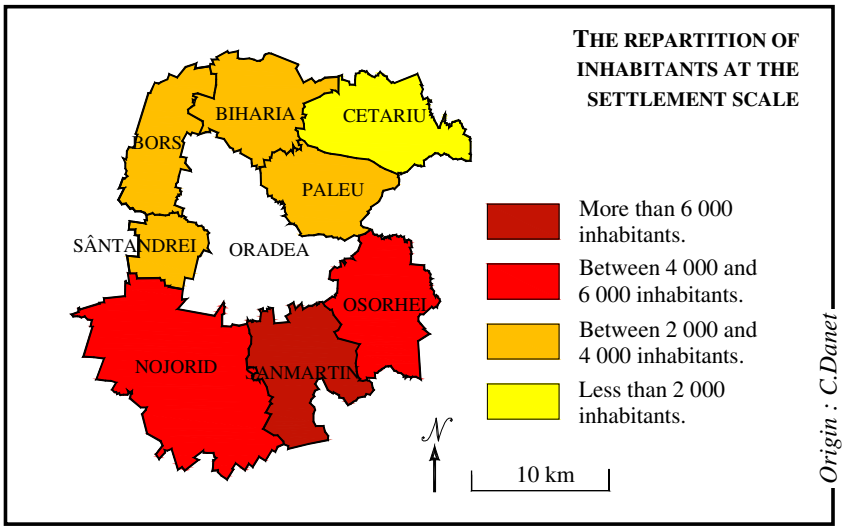
Those data may contain some errors, or, at least, lack of precisions. Indeed, the recent data available come from the internet site of the Agencia Romonia Autoritatea Rutiera, www.arr.ro they are made at the settlement scale and not at the villages scale. Consequently, some villages such as Santăul Mic in Borş settlement, or Paleu, which are on the way of an existing bus, are probably the place of a bus stop although it is not indicated in the chart. Nevertheless, despite those lacks the charts unables us to understand some of the structural changes.

First, the general transport offer has increased since the early 90's. Even since 2000, the situation is sensibly better. In 2000, there was four settlements linked with bus to Oradea : Sântandrei, Sânmartin Oşorhei and Nojorid, and among those settlements at least twelve villages. In 2005, approximately six settlements : Sântandrei, Sânmartin Oşorhei plus Cetariu and Borş, and about eighteen settlements. The frequency of the transport has not only changed in quantity but in quality as well. Indeed, there is more transports during the non working days. While in 2000, only five of the twelve guaranteed trips during holidays and week end, in 2005 fourteen of the eighteen trips (or nine of the twelve trips) assure transport during the non working days.

A more spatial analyse shows that the modification of transport follows the territorial recomposition. The settlement where the transport increase the more is the economic pole of Sânmartin. The combination of tourist attraction and residential growth had dynamized the economy of the settlement, and increased the transport need. At the moment, they is one bus leaving every fifteen minutes, and two during the peak hours. Indeed, the people frequenting this place are heavily subject to use bus. The thermal bath and recreational area attract a lot of young people and old or disabled people who do not have a private vehicle. Surprisingly, the share of buses going to Borş does not reflect his economic importance. It can be explain by a large use of the private car.



Concerning the other villages, the development of transport towards Cetariu, Nojorid, Oşorhei and Sântandrei may reflect the development of more economic, cultural and social links with the city. It includes the movement of the rural population to go to the city, and also the suburban phenomena of urban population living the city to the countryside in order to have a better life environment. Like many other Post-European countries, Romania is concerned by a third type of migration. It is the people originated from rural space, who went to leave in the city during the soviet period and who come back now to the countryside because they can make a living from subsistence agriculture and benefit from a cheaper way of life.



A parallel with the map of the population repartition underlines the importance of the composition of population. Indeed, several settlements can have a similar number of inhabitants but a very different transport circulation. For example Borş, Biharia and Sântandrei have a similar population, about 3 000 inhabitants. But while Borş and Biharia have a very rare bus link with Oradea Sântandrei has 30 buses a day, during working days.

Nowadays, Sântandrei is deeply integrated in Oradea economy. In order to develop those links with the other villages, to encourage and support their development whatever their development focuses on a residential, industrial or resort dimension it will be essential to develop the means for people to move daily.

. THE SERVICES

After studying the circulation of transport, we will focus more precisely on the services surrounding bus transport. First of all, the information about the different buses is not easy to obtain. Indeed, the schedules are only available at the bus stop. There is no common information office. All the different private companies have their own office. For example, Ovis Tour and Tesan are based in Nojorid while Intrans is in Oradea. Secondly, the pricing is fragmented. There is two types of transport pricing. The first one is the ticket, available for one trip. The price of the ticket is depends on the number of kilometres. The second one is the monthly or season ticket but they are only available for one line of bus. There is no global pricing for the whole metropolitan area.

In order to better adapt the bus offer it will be important to realise a sharp analyse of the users habits, in order to outline their characteristics and their transport requirements :

- **Characteristic of users** : Where are they leaving ? In which field are they working ?
- **Use of the transport** : Why do they use common transport instead of private vehicle ? Practical, financial reasons .. ?
  - > Destination : Where do they come from ? Where are they going ?
  - > Frequency : How often do they use common transport ? How many different transports do they use each day ?
  - > Reason of the trip : What is the aim of the trip ? Working, tourist, leisure… reasons ?
- What are the **advantages and disadvantages of bus transport** considering the financial, accessibility, efficiency, flexibility, comfort or security, dimension ?

Those question should enables the common transport operators to highlight the characteristics of transport users (commuting trip, business trip, tourist week-end journey, long-distance trip, foreign travellers…), in order to identify the commons and differing and give the appropriate answer in term of frequency, pricing, services and managing of interest conflict.

To conclude, we can say that the metropolitan area benefits from a compact and varied transport system. There seems to be some interesting possibilities of developing peripheral railway stations and turn them into intermodal point with bus and tramway connections. Nevertheless the equipment and the infrastructure need to be rehabilitated and modernized. This implies a long term project and the creation of an integrated plan for the whole metropolitan area transport. This general reorganisation also includes the bus question. To reorganized buses, it is essential to take into account the railway or the tramway connections. However, it is possible to realize some smaller improvement out considering the service offer feasible on the short term. We will now examined in more details the challenges of such actions.

II. THE CHALLENGES OF THE TERRITORY, IMPROVE TERRITORIAL COHESION

The reorganisation of Oradea Metropolitan Area transport will have to face different challenges.

First of all Oradea Metropolitan Area is concerned by the general stakes of environmental preservation and economic sustainable development. We will see how transport interferes with those fields.

Secondly, transport raises specific stakes, links with the specific spatial composition and institutional organisation of the territory.

From a spatial point of view, transport permits to guarantee territorial cohesion. As Oradea Metropolitan Area is composed of actors characterised by the diversity of their socio-economic structure and dynamism, they have to preserve the cohesion of the territory. Of course, the peripheral villages can not have the same influence as Oradea. That is why, they have to valorise they differences, they rural character and their leisure and resort potential. They can develop it in a complementary way to the cultural commercial and economic offer of the city. Consequently, the links between the central town and the peripheral space must be increased. Oradea has to spread its dynamism and at the same time to increase its economic potential integrating the villages. We will see here how the development of transport permits to establish favourable foundations for the support of those links

The second challenge is to coordinate the different actors operating in transport. Indeed, at the end of the planning system transport has been liberalised. Private companies have take over the bus trip. Consequently, the number of actors have been multiplied, and the management and the coordination of the transport service is getting more and more complicated. We will see here that the creation of an actor operating at the metropolitan scale can optimise the transport organisation.

A . THE GENERAL STAKES, DECLINE OF THE TERRITORIAL DIVERSITY AND COHESION

Transport interferes with the whole sphere of the society. Consequently, if its growth is not coordinated it can threaten the global development of a territory. The two main threats are the environmental and the sustainable economic development issues.

A 1. Environmental Preservation

The transport management has to face the global issue of greenhouse effect. Indeed, the increase of circulation contributes to raise atmospheric pollution. This phenomena is more particularly true in downtown, where short car ride usually made with a cold motor consumes three or four times more petrol than usually. The peripheral spaces are involved as well. The increase of circulation between the town and the rural space and the construction of new infrastructures modify the ecosystem of the rural space. It contributes to fragment the area and to homogenise the fauna and the flora.

To contain those damages our society tries to decrease the role of petrol in transport. Those decisions belong to local governments. Some tries to promote substitute fuel, but the main action of local authorities is to promote common transport or alternative transport such as bicycle, tramway. To give credibility to those transports a global project must be undertaken. To be attractive common transports must be financially available, quicker and more convenient than private vehicles. The transport organisation must be thought to give priority to the common transports and to be accessible.

A 2. Sustainable Economic Development

The second general challenge of transport is to maintain and preserve a sustainable economy. Indeed, transport has a major role in territorial development. Easy accessibility is a vital factor for tertiary poles. Equally, a logistic or an industrial zone might be able to grow quickly as it is next to structuring axes.

In order to be efficient, transport organisation must focus on economic poles. It implies to develop the existing nodes encouraging intermodal solution. It also involves to localise the new poles near the main infrastructures.

Now we will study the more specific stakes of the territory. The reorganisation of Oradea Metropolitan Area transport will have to guarantee both territorial and administrative cohesion.

B . THE SPECIFIC STAKES, INSUFFICIENCY OF AN INDIVIDUAL APPROACH

Oradea Metropolitan Area has to preserve the territorial cohesion of the area. First, we will see the different threats concerning the metropolis. In a second time, we will analyse the potential answers to those problems.

B 1. The risk of increase territorial disparities

To guarantee the territorial cohesion, the metropolitan area has to face two problems. On the one hand, spreading the economic development of the town towards the villages, in order to open to the metropolitan area the peripheral spaces ; on the other hand, preserving the development of the town and preventing the congestion and pollution problem.

. CONGESTION AND DEGRADATION OF THE QUALITY OF LIFE

According to the Sectoral Operational Programme of Transport the main problems of transport inside the city are congestion and environmental degradation. The bus circulating at the metropolitan scale are not the main means of transport involved in that issue, however has they link the peripheral villages with the city they interfere with those problems.

Congestion diminishes the economic competition of a city. It limits the flux and exchange. An issue particularly sensible for Oradea which partly owns its strength from its geographic position, and the situation of junction before Hungary and European countries in general. The reorganisation of common transport must contribute to diminish the congestion problem of the inner town. For example, it can favour peripheral nodes like the one existing in Nuferului, instead of obliging the bus circulating in the peripheral space to end in the buses station. Indeed, as the bus station is situated in the North-East of the town, the bus coming from the settlements situated in the south have to go through the whole town. A peripheral stop would beneficiate both to decrease the number of vehicle circulating in the town and optimise the transport time if other means of transport such as tramway are connected to the bus. This kind of junction can also be completed by parking so the users can let their car at the periphery and take the tramway. However, to be attractive this solution must be better than private transport. So it is essential to give priority to the tramway in the town circulation, spatially, preserving their own space, and temporally, having the right of way at the junction for example.

Environmental degradation concerns the increase of pollution, noise or accident. Reserving some spaces exclusively to bus or tramway circulation can unable to diminish the private vehicles modal share and to enhance environment quality,

. ISOLATION AND ENVIRONMENTAL DEGRADATION

Considering peripheral spaces, transport has to face three main challenges.

First, the problem of the increase of traffic. According to the Programme Operational Regional, the peripheral area is usually the space which record the most important traffic increase. The development of new infrastructures, and new common transport circulation is needed. In Oradea, the metropolitan area is in charged of the creation of a ring road in order to ease the traffic load in the town, and to connect the peripheral villages. In the future, this ring will unable to develop a bus circulation between the villages.

The second challenge of the village, is to develop their endogenous resources. Indeed, the villages represent the preservation of the rural identity, the folk customs and traditions, that can be valorised by tourism. Some villages of the metropolitan area also have specific resources (such as the thermal bath in Sânmartin) that already attract a lot of people. In the coming years, those eight villages will probably be more and more concerned by the arrival of new residents, tourists or only walkers. In this context, the bus transport has to take into account the specific needs of the different users. Early buses for the working people, buses in the medium of the morning and the afternoon for the tourists, buses going to the commercial centre for the residents… Those different needs implies a very flexible schedule.

According to Goadard and alii, (2001) this essential accessibility is the result of four component :

- **Spatial** : influences accessibility by determining the amenities available. Spatial distribution of spatial amenities, and also spatial distribution of request with respect to amenities

- **Transport** : it determines the conditions of accessibilities in terms of time, costs or efforts required by individuals. It is characterized by citizens' travels, network of transportation infrastructures, spatial distribution, time, costs of travel and the effort which individuals provide to reach amenities

- **Individual** : it represent the social and professional individuals' characteristics, it establish needs, capacities and opportunities in term of accessibility.

- **Temporal** : it represents the temporal restrictions of access to goods and services. Precisely it takes into account the availability of activities at various time of the day. It also include time invidious allot to these activities.

All those components depend on one another.

The last challenge is to link the underdeveloped areas with the dynamic centre. Indeed, according to JP. Bailli (2001), the mobility is a right everybody must have. Unequal aptitudes for travels unable the inhabitants to put more or less their mobility at the service of a capital or social success. The aim of common transport is to ensure capability[6] of travelling. An appropriate bus circulation unable the inhabitants of a village to enjoy the opportunities of the city such as education, health, culture, employment, banking services trade, services, leisure. According to the Sectoral Operational Programme of Transport equality of opportunity to share less than fair balance of social advantage is a major issue affecting the evolution of the economy and the society in Romania. Most of the villages of the metropolitan area are concerned by this phenomena. Indeed, if the main village of the settlement is more or less regularly linked with bus to Oradea, the situation is more difficult for the very little villages. It is specifically true for the villages of Paleu and Cetariu.

The problem of downtown congestion and depression of peripheries will become a strategic issue in the next years. The urbanisation process will strengthen transport in big cities while decreasing the circulation in peripheral area. « Urbanisation tendency is mentioned by several national experts as the factor which will focus the discussion on exclusive intermodality of metropolitan area ». (Vers l'intermodalité du transport des passagers dans l'UE -Rapport2-).

C 1. The risk of an actor network weakening

The decentralization in road or railway management in Romania is the highest among all the central and eastern Europe countries. Road transport has been privatised and performed by numerous buses and trucks operated either by their owners or bus and truck companies. Nowadays, this lack of institutional organization generates troubles (White Paper, 2005).

First, the transport liberalization and the confirmation of the road transport on the market cause limitation of state activities in external costs such as reduction of environmental consequence. Environmental degradation is less and less taken into account.

Secondly, this liberalization can generate conflicts between the operator and the local authorities. Indeed, as there is no appropriate regulation, divergent interests can lead to conflicts of interest. For example, in a competitive logic, a change of schedule can represent an important gain or loss for a bus company.

[6] Capability is understand as"the various combinations of operation that the person can achieve. Capability is thus a whole of vectors of operations which indicates that an individual is free to carry out such or such type of life" (SEN 1992)

Moreover, as we noticed it in the diagnosis, this deregulation results in lack of data. The operators consider data as a propriety or an asset they have to protect.

Finally, gather a part of their finance capacities would unable the operators to have a more important position in the transport market and to hold bigger projects.

If introduction of competitiveness is theoretically an opportunity - because market use to be more close the satisfaction of user – it must be supervised by institutional rules aiming to increase cooperation between the transport operators. Now, we will see what king of institutional rules can organize the actors.

To put it in a nutshell, the pooling of common transport management is essential to the cohesion, the competitiveness, and the sustainable development of the whole metropolitan area. We will now try to see how to turn those challenges into reality. The main point underlined in this section was the coordination of the different actors. We will now try to define how to favour cooperation between the members and what kind of cooperation ? How to put together and mobilize the appropriate team to develop and organize the cooperation ?

III. PLANNING PROPOSALS, INCREASE COOPERATION BETWEEN ACTORS

The coordination between actors can be improved from two points of view. It can be improved from an institutional point of view and from a structural point of view.

First we will see, at the very short term, how can be implemented to the bus transport offer.

Secondly, we will try to see, at the long term what can be done to improve the whole transport organisation. Indeed, as we already saw it, acting only on the field of the transport is not a sustainable planning. It needs to be imbricated with the whole transport offer. To adopt this integrated reflexion, the first step is to create a planning document defining the role and the obligation of each actor and a coordinating unit managing the implementation of the organisation. Any major urban transport project must rely on a comprehensive baseline of data (importance of collecting numerous data at the local level) and clear political approach.

Such a document must take into account the existing regulation. So, first, we will enumerate the existing sources of regulation. Secondly, we will try to establish a methodology of the transport regulation creation. Finally, we will analyse one example of integrated transport plan, the Urban Transport Plan of French towns.

A . THE SHORT TERM PROPOSAL, COORDINATE THE TRANSPORT BUS OFFER OF THE OPERATORS

The coordination must be realised at every level, between the different private bus companies and between the urban transport and the metropolitan transport. In the first time we will focus more particularly on the collaboration between the different bus companies.

. INTERMODALITY

Nowadays, coordination of transport is immediately associated with intermodality. Intermodality is the main concept of transport in Europe. It describes a trip effectuated with, at least, two different means of transport. It implies a general technical harmonization and interoperability between systems and supports for innovative initiatives. However, it can be implemented in the same way in all countries. They have different levels of modernization, integration or infrastructure heritage.

In the case of Romania, it may not appear as the most essential concept. Indeed, according to the report of the European Commission of Energy (October 2004) the government focuses on the obsolete and inexistent infrastructure, the rigidity of common transport, the lack of available data concerning the needs and the habits of the users, and the increase of the transport demand. So, right now, intermodality does not appear as the appropriate solution. However, the different actors need to coordinate their actions, otherwise they will not be efficient.

. OPPORTUNITY OF A TERRITORIAL COORDINATED OFFER

In the case of bus transport, a cooperation among the private companies is essential in order to find some practical solution to improve the whole metropolitan area transport offer.

First, the companies have to collaborate to share the different trips. Indeed, they do not represent the same financial gain. A equitable repartition of the more and less used lines could unable to maintain both quantitatively and qualitatively the whole demand. Indeed, maintain the less used lines unable to preserve a more homogenous distribution of the population and to prevent congestion and pollution problems. Such a repartition, would therefore profits the whole area and the whole transport companies.

Secondly, the companies could collaborate about the information for the public. The promotion of the information is an important factor of transport development. The time schedules of the different lines could be gathered, published together and placed at the public disposal. Currently, there is not paper version of the time schedules. They are only available on internet (http://www.autogari.ro) but the internet access is still limited, particularly for the elderly people. What is more, the internet information are partial because the site does not give the precise stop in the whole village, it just mentions the stop in the main village.

Finally if the transport companies choose a high integrated cooperation they can mutualise their financial patrimony. Indeed, the White Paper estimates that Romania is characterised by the strongest financial and fiscal barrier and the lowest GDP per capita among European countries. There is an important lack of subvention. What is more the national financial resources are expected to decrease in the coming years. That is why innovative models are needed.

Those collaborating actions can contribute to create common working habits and start, in a second time, intermodality projects with other type of transport.

To put it a nutshell, the very first step appear to be cooperation between the different members. Now, in the third part, we will see how to put together and mobilize the appropriate team to develop and organize the cooperation.

B . THE LONG TERM PROPOSAL, CREATE AN INTEGRATED TRANSPORT PLAN

In this second part we will draft the framework on a transport plan creation. First, we will sum up the different existing regulations at the European, national and local level. Secondly we will try to elaborate a methodology of the creation of such a document. Finally, we will analyse an example of an urban plan transport plan.

B 1. The existing regulation

a . The European regulation

. THE WHITE PAPER ON TRANSPORT

The White Paper on Transport focused on three measures :

1. Changing the modal share in the long term,
2. Clearing infrastructure bottlenecks,
3. Placing safety and quality at the heart of the transport policy.

His objective is to develop a modern transport system, sustainable from an economic, social and environmental point of view. The solution of an integrated transport appears to be a sustainable alternative. To apply this integrated transport the White Paper underlines the need for a comprehensive strategy going beyond European transport policy. That is to say taking measures at national and local level in the context of other policies such as economic, urban planning, budgetary and fiscal, competition, research policies.

The White Paper wants to support this transport system through twelve action axes :

1. Revitalizing railways,
2. Improving the quality in road sector,
3. Promoting transport by sea and inland waterway,
4. Striking a balance between growth in air transport and the environment,
5. Developing intermodality,
6. Building the Trans-European Transport network,
7. Adopting a policy on effective charging for transport,
8. Recognizing the rights and obligations of users,

9. Adopting a policy on effective charge for transport,
10. Developing high-quality urban transport,
11. Putting research and technique at the clean efficient transport
12. Managing the effect of globalisation

Local public authorities are invited to develop strategies in order to reconcile modernization of the public service and rational use of the car.

In 2005, the White Paper made a intermediary report and actualised its proposal with the entry of new countries.

MEASURE	**OFFICIAL LEVEL OF PRIORITY**	**ESTIMATION OF THE REALISATION POTENTIAL**
1 . Revitalizing the railway.	Important in national policies.	Strong barrier of implementation.
2 . Improving quality in the road sector.	Important in national policies.	Strong barrier of implementation.
3 . Promoting transport by sea and inland waterway.	Important in national policies.	Slight pressure of barrier.
4 . Striking a balance between growth in air transport and the environment.	Secondary goal.	Strong barrier of implementation.
5 . Turning intermodality into reality.	Secondary goal.	Barrier not allowing to realize given policy.
6 . Building the trans-European transport network.	Fully consistent priority.	Strong barrier of implementation.
8 . Recognizing the right and obligations of users.	Secondary goal.	Strong barrier of implementation.
9 . Adopting a policy on effective charge for transport.	Secondary goal.	Barrier not allowing to realize given policy.
10 . Developing high-quality urban transport.	Important in national policies.	Strong barrier of implementation.
11 . Putting research and technique at the clean efficient transport.	Insignificant goal.	Barrier not allowing to realize given policy.
12 . Managing the effect of globalisation.	Not applicable, no information available.	

Concerning the Action 10 : “Development of a high-quality urban transport”, the White Paper underlines the risk of an action mainly oriented towards an improving of road infrastructure and therefore, facilitating a rapid growth in car use

and creating “induced traffic”. Indeed, the action is based on a reduction in transport congestion and on an improvement in traffic management such as reconstruction of streets in towns and settlements, multi-level intersections, or introduction of modern traffic control systems. The additional capacity provides by these road investments can result in a vicious circle of congestion, and create more and more demand for road spaces. The risk is to overemphasise road building and pay too little attention on public transport and enhancing the quality of public transport, the second dimension of this action. The role of urban transportation is crucial to maintain the equilibrium of transport organisation.

Nevertheless, it is important to notice that, according to national policies, improving quality and safety of infrastructure are the top priorities. Recognizing the rights and obligations of users, trying to turn intermodality into reality, putting research and technology at the service of a clean, efficient transport are only secondary objectives.

. THE EUROPEAN SPATIAL DEVELOPMENT PERSPECTIVE

The second European document interfering with transport policy is the European Spatial Development Perspective, ESDP. The ESDP establishes the general concepts and directives of European planning policies. The global objective of the document is to aim at a balanced and sustainable spatial development of the European territory. To get to this challenge, the European Commission fixes three specific objectives :

1. The economic and social cohesion,
2. The preservation of the natural and cultural resources,
3. A more balanced competitiveness of the European territory

The strategy established to combine those three specific objectives is to privilege a polycentric development. A polycentric development means a balanced urban structure, based on a hierarchy of towns, and the development of complementary and cooperational links between towns.

From the transport point of view, it implies to look for a better accessibility of the whole territory. That is to say, to fight against the congestion problem of the downtown and to link the peripheral spaces to the dynamic economic centre.

. THE EU SUSTAINABLE DEVELOPMENT STRATEGY

The third European document interacting with transport organisation is the European Union Sustainable Development Strategy. The EU Sustainable Development Strategy considered specifically the long term dimension of territorial policies. Like the ESDP, it is based on the principle of combination of economic growth, social cohesion and environmental protection.

The strategy pays a specific attention on transport. First, it lists the different problems linked with transport management : emissions of gases causing global warming, unequal transport circulation creating poverty, social exclusion and regional imbalances, and transport congestion. Then, it drafts propositions likely to generate a sustainable development. It promotes a new approach of policy making, based on more coordination between sectors and between levels of government. Action must be taken at all levels (national, regional and local) in order to improve policy coherence. The strategy also focuses on declining areas. It specifies the need of spatial cohesion policies to improve their targeting of the least developed regions, and to improve transport towards those spaces.

. THE GREEN PAPER IN THE SECURITY OF ENERGY SUPPLY

The Green Paper in The Security focuses more particularly on the energy supply offer. The Commission had fixed an ambitious target of 20% substitution of diesel and gasoline fuels by alternative in road sector, that means to rationalise private car use and to improve urban public transport.

In complement, a series of directives fixes emission limits for different categories of vehicles and Euro standards for fuel quality, noise emission limits and roadworthiness are been tested.

. THE ACTION PLAN FOR SUSTAINABLE URBAN DEVELOPMENT STRATEGY

The last European document concerning the transport organisation is the Action Plan for Sustainable Urban Development. It is based on the following principles : subsidiarity, integration, partnership, environmental sustainability and market efficiency. To turn those principles into reality the Action Plan had established four objectives :

1. Strengthening economic prosperity and employment in towns and cities,
2. Promoting equality, social inclusion and regeneration in urban areas,
3. Protecting and improving the urban environment,
4. Contributing to good urban governance and local empowerment.

Henceforth, we will develop more precisely the action propositions of those objectives in the transport field.

The first action proposition corresponds to the promotion of an attractive urban transport. It specifies the need of city to develop an integrated approach to promote the use of public transport, cycling, walking and car sharing. Urban

authorities have to assess what type and level of public transport their area needs, fix service levels which are not commercially viable and work with transport operators to develop new types of services.

The next proposition aims at reducing environmental impact of urban transport. It encourages a shift towards the use of the more sustainable forms of transport. What is more, it noticed the alternative of, on the one hand, pricing of infrastructure taking into account environmental issues and, on the other hand, internalising the external costs of transport through measures such as taxation, road user charging and licence fees

The third proposal insists on communication. First, it can mean develop know-how and exchange of experience. Secondly, it also includes public information and participation. Indeed presenting data to the public and to politicians in way they really understand and accept the necessary changes.

Finally, the last proposition emphasises the necessity of a global approach. That is to say to consider at the same time : strategic planning, horizontal and vertical issues integration. First, it implies to consider a transport project in its all implementation. The project must take into account the land use planning, pricing of infrastructure, decision making process, transport system management. Secondly, it must not keep the only transport point of view vision but include economic or building policies because they are closely connected.

b . The National Regulation

There is no national regulation for common transport at the local scale. From now on, the governmental priorities are focused on the construction of new infrastructure. For example, the law nr. 203/2003 on developing and modernizing the transport network of national and European importance. Recently, he has also established the Development strategy of the railway system 2002-2010, the Strategy of the national roads, the Strategy of the national program for motorway, but nothing at the local scale.

. THE NATIONAL STRATEGIC FRAMEWORK

Because of this lack of local regulation, the common transport operators have to take into account inadequate regulations.

First, they have to compose with very sectoral and technical regulations. For example, the only technical regulation OTL is obliged to comply with is the Law on public welcome, salubrity or electricity alimentation.

The second document they have to follow is a very general one : the National Strategic Reference Framework, NSRF. It fixes the planning objectives for the whole territory, the objectives are the following ones :

1. Development of basic infrastructure,
2. Adequately developed, modern and sustainable infrastructure,
3. Safe and efficient transport
4. Diversification and improve domestic transport .

Actually, there is no alternative between those very specific and technical laws and the general National Strategic Reference Framework. However, the question is currently in process, and the next years the NSRF will be completed by a General Transport Master Planning.

. THE OPERATIONAL PROGRAMMES

The last national documents which interact with transport policy are the Sectoral Operational Programmes. They establish the priorities, goals and fix the subventions conditions of European Union. The two main Operational Programmes linked with transport are the Sectoral Operation Programme of Transport and the Regional Operational Programme.

The Sectoral Operation Programme of Transport, SOPT, is more devoted to the implementation of the national infrastructure. However, it mentions the promotion of a balanced transport system development, based on the respective competitive advantage of each modes. Therefore, it encourages the development of rail, intermodal transport and promotes sustainable development. The total budget of the SOPT over the programmed period is estimated at about 5 billion Euros, which represents about 23% of the overall budget of the structural operations for Romania. The main actions concerning local transport are summed up in the following chart:

Priority axis 2 : Modernization and development of the national transport infrastructure outside the TEN-T priority axes.	
2.1 Modernization and development of national road infrastructure – Diverting transit traffic away from population centres.	1, 008.23 millions euros are available for the whole axis.
2.2 Modernization and development of national railway infrastructure – Rehabilitating railway stations, attention will be focus on the preparation of technical specification for interoperability on the conventional rail network and modernizing power centres.	
Priority axis 3 : Upgrade the railway rolling stock.	
3.1 Upgrade the railway rolling stock with up to date train units.	230.0 millions euros are available for the whole axis.

Priority axis 4 : Sustainable development of the transport sector	
4.1 Promote inter-modal transport : facilitate modal shift for freight principally from road to rail/road. There, the intervention concerns especially the promotion of terminal infrastructures or logistics centres for intermodal units.	321.00 millions euros are available for the whole axis.
4.2 Improve traffic safety across all transport modes.	
4.3 Minimize adverse effects of the transport on the environment : non polluting environment, friendly transport infrastructures initiatives. Management environmental system which include strategic analysis, monitoring and mitigation measures and inter-institutional co-operation.	
Priority axis 5 : Technical Assistance for SOPT.	
5.1 Provide support for implementing, monitoring and controlling an effective SOPT.	60,37 millions euros are available for the whole axis.
5.2 Provide support for information and publicity regarding SOPT.	

In parallel to the SOPT, a Regional Development Operational Programme focuses more especially on the urban transport development. The main actions concerning local transport are summed up in the following chart :

Priority axis 1 : Improvement of regional and local infrastructure.	
1.1 Rehabilitation/modernization of the county and local transport network.	1733,82 millions euros are available for the whole axis.
Priority axis 4 : Sustainable urban development.	
Rehabilitation of the urban public infrastructure and utilities.	655,00 millions euros are available for the whole axis.
Priority axis 5 : Technical Assistance for SOPT.	
5.1 Support for the implementation and evaluation of the ROP.	115,59 millions euros are available.
5.2 Support for the publicity and information activities of the ROP.	

c . The Local Regulation

At the local level we will considered two working documents. First, the Development Plan of the Department of Bihor, and secondly, the concept of common transport development of the metropolitan area.

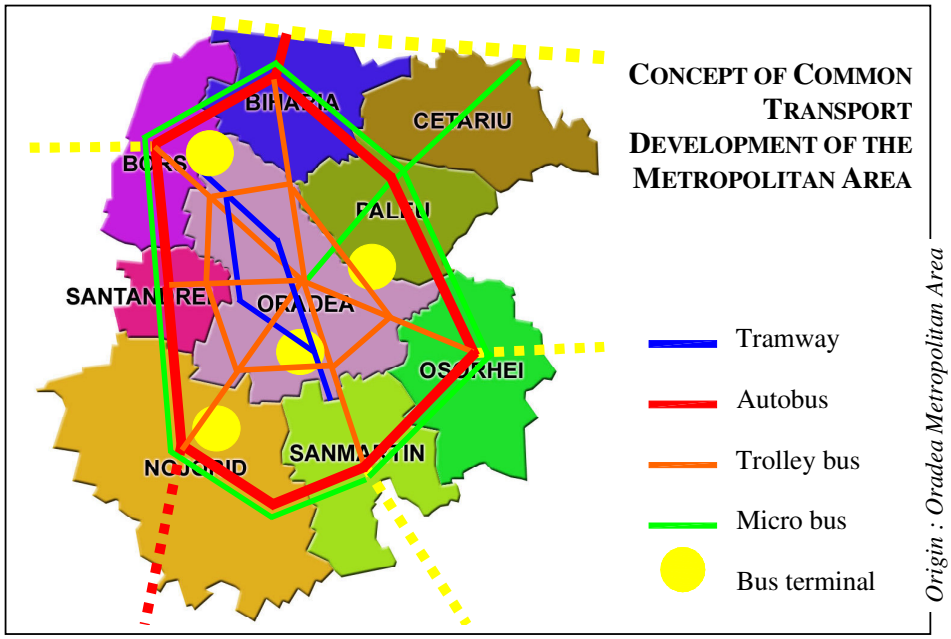
. THE DEPARTMENTAL DEVELOPMENT PLAN

According to the Development plan for the Department of Bihor, the improving Common Transport is necessary in order to increase the people and goods mobility. Thus, developing intermodal transport will allow an improve means of transport efficiency and will decrease the cost of raw material transport. The Plan establishes several objectives :

1. Balance the different means of transport and the intermodal development,
2. Rehabilitate the train track and reconnect the airport with the road
3. Reduce downtown congestion
    - Encourage the bypass of the centre (create a ring),
    - Develop a high quality urban transport both concerning infrastructures and transport.

. THE CONCEPT OF COMMON TRANSPORT DEVELOPMENT

Oradea Metropolitan Area has started to draft the main guideline of a transport policy. It is based on the principle of increasing the transport capacity as we get closer to the centre. Consequently, in the centre of the town, there is tramways and trolleybus and the peripheral spaces are connected to the centre with buses and trolleybuses. This scheme is a draft for the very long term, and is conditioned to the realization of important infrastructures, such as the first and the second ring road around Oradea.



To implement such a project, it is essential to elaborate a transport development document ; in order to coordinate the transport project with the economic, building, environmental or commercial policies, to fix precisely the role of each actor, the subvention available, and the short term, medium and long term target.

To sum up the lessons from the last pages we can underline the discrepancy between the existing situation and the institutional objectives. On the one hand, the existing situation is characterised by the absence of coordination between the actors. They are many and fragmentised. On the other hand, the national and more particularly the European policies promote an integrated transport and intermodality conditioned by a closely connected actor network.

The two situations are not mutually exclusive, nevertheless as the White Paper “Enlargement bilan 2005” noticed, it seems difficult to apply the intermodal policies now. One alternative can be a hierarchical structure of priorities. It could be interesting to start creating the actor network and the work cooperation habits the intermodality is supposed to rest on.

Now, we will focus on the creation of the document permitting to constitute this actor network and to support the actor dialogue

B . THE CREATION OF AN INTEGRATED TRANSPORT PLAN

First of all, we will analyse the methodology for elaborating such a plan, then, we will study more precisely an example of an integrated transport plan : the French case of the Urban Transport Policy.

B 1 . Methodology

. METHOD

The very first step to reach a more integrated approach is to open the transport plan to both horizontally and vertically approach.

The horizontal dimension means to consider the other sectoral policies such as urban, environment, economic, policies. Indeed, they are closely connected. For example, higher residential densities lead to shorter trips and lower levels of car use. Higher employment density leads to greater public transport use. Mixed development

leads to shorter trips and lower levels of car use. Contrary to car-oriented suburbs, traditional neighbourhoods have shorter trips and lower levels of car use. Larger conurbations have lower trip lengths and more public transport use… Sectoral decisions and transport policies are interconnected one another and need to be decided jointly.

The vertical dimension refers to collaboration between the different levels of administration : national, regional, departmental and local policies. The vertical dimension is also connected with the collaboration between the local authorities, and civil society.

.DOMAINS

Henceforth, we will focus more specifically in the different domains a transport plan should be coordinate to.

POLICIES	TRANSPORT CHALLENGES
Economy	- Regulate the transport demand according to the need of factories. For example, adapt itself to those who need a just-in-time organisation and those who need more stock production.
Urbanism and Regional Planning	Identify the expansion of urban space into rural area and functional specialization between housing, shopping, offices and entertainment in order to : - Concentrate urban sprawl in some specific urban pole. - Canalise and reduce the working trip.
Social and education	- Make the public aware of the common transport issue and security problem. Coordinate the time of school and work and avoid road congestion.
Finance and budgetary	- Mobilise enough funds to improve the infrastructure and the equipment.
Environment	- Reduce CO2 emission and take into account the natural ecosystem in the infrastructure creation and maintenance. - Consider the noise pollution problem
Competitiveness	- Protect the diversity of actors from the monopole of international companies
Research policies	- Consider the different national attempt in a European way and consider the cooperation solution, and the intermodality opportunities.

Source : the White Paper

• EVALUATION

Finally, in order for the transport plan to have a real impact, and to be as close as possible to reality it is essential to evaluate the results.

POLICIES	EVALUATION
Economy	- Measure the ability of companies to manage their just-in-time production.
Urbanism and Regional Planning	- Measure of public and private transport growth. - Evaluate the density of sprawling phenomena.
Social and education	- Estimate the time planning organization and the congestion problem. - Evaluate the behavioural change of the drivers, and the evolution of road accidents. - Measure the public implication in the decision making.
Environment	- Estimate the noise impact. - Measure CO2 emission.
Finance and budgetary	- Evaluate the public and private fund available and the possibility for infrastructure to generate their own income.
Competitiveness	- Estimate the monopole degree of the operator.
Research policies	- Register the innovative cooperation project.

Those point are hard to evaluate. But evaluating the process is more important than the final appreciation. The objective is to measure progress in achieving policy objectives. Indeed, it helps to formulate or clarify objectives, to engage policy makers, experts and the public in the same process.

B 2 . The French Urban Transport Plan

The Urban Transport Plan permits to draw on overview of the whole transport organisation. Its originality is to develop an global vision in order to establish integrated actions. This kind of approach should unable to make the action more efficient and to avoid contradictory investments such as improving the common transport in the centre of a town and increase the parking capacity at the same time. We will try to precise the different objectives of the Transport Urban Plan and to evaluate its implementation. This work is mainly based on the report of JM Offner (2002) « Plan de déplacement urbain un bilan controversé ».

. HISTORICAL SUMMARY

The law on Air and Rational Use of Energy (Loi sur l'Air et l'Utilisation Rationelle de l'Energie, LAURE) passed in December 1996 made compulsory the creation of an Urban Transport Plan (Plan de Déplacement Urban, PDU) for the more than 100 000 inhabitant agglomerations.

The transport regulation started in 1982 with the Orientation Law on inner transport. At that time, the transport plan focuses more especially on the promotion of common transport. They were used to support the modernization of bus network in the medium towns and of tramways and subway in the biggest one. Nevertheless, the small competencies of the actors in charged of the implementation of the Transport Plan limited their intervention. Indeed, the transport authority was usually completely dependant on the local government decision concerning circulation, parking, infrastructure, urbanism.

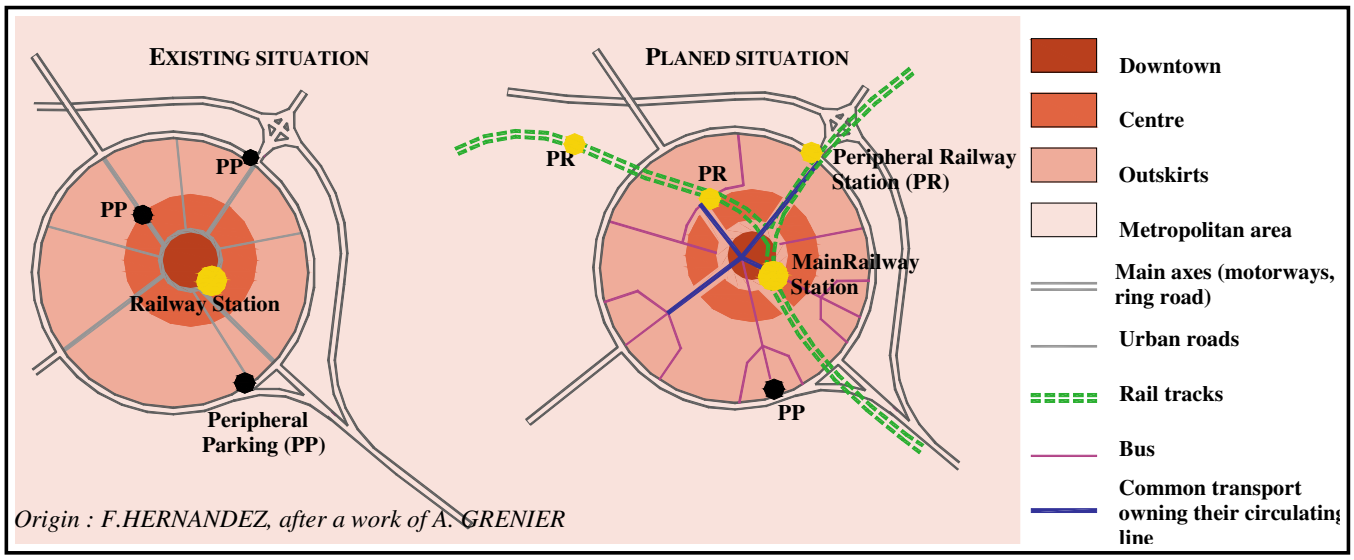
. THE PDU CHALLENGES AND OBJECTIVES

The PDU created since 1996 focus more specifically in the environmental dimension. The transport plan has to « promote a sustainable development between, on the one hand, the need of mobility and accessibility, and, on the other hand, the health and environmental protection necessity ».

To fulfil this aim the plan has to respect six legal orientations :

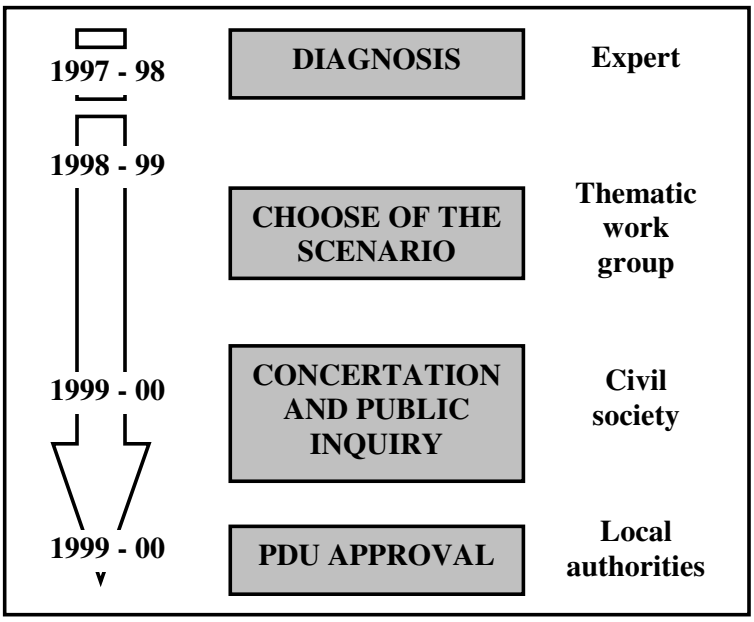
1. The car traffic decrease,
2. The development of common transport alternative and non-polluting means of transport such as walking, cycling,
3. The sharing of road space in favour of the common transport part in order to make the common transport circulation more efficient,
4. The improvement of circulation information,
5. The planning of transport of goods and freights in order to reduce their environmental and circulation impact,
6. The Support of companies and local authorities favouring the common transport of employees.

Some researchers have study the concepts and PDU propositions and they have elaborated a scheme summarizing the existing situation and the planed situation the PDU would like to reach. Here is an example of this schematisation.

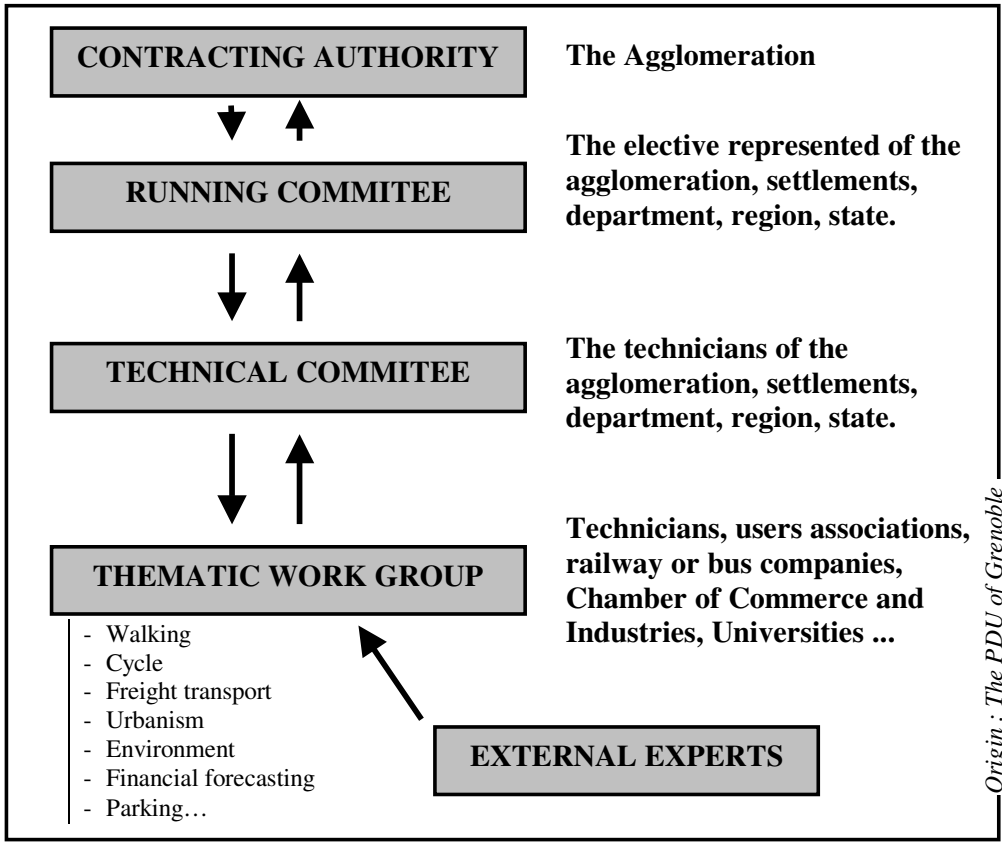


. IMPLEMENTATION

It usually takes between five and six years to the local authorities to create this document.



In the case of Grenoble agglomeration the elaboration of the PDU has been entrusted to a Common Transport Association, "Le Syndicat Mixte des Transports en Commun". The Common Transport Association is the running authority in charged of the conception and the realisation of the tramway, bus and trolleybus network organisation. It intervenes in all the settlement of the agglomeration and is financed equally by the region and the agglomeration. The organisation of the urban transport network has been entrust to an operating society. The different actors working on the PDU conception are sum up in the following scheme.



Most of the French towns have the same role repartition in the field of transport. In the case of Bordeaux Urban Community, the local authority is in charged of the transport offer definition (line layout, schedules) and the pricing policy. It also partly grants funds the biggest investment of infrastructure or equipment and has to control of the implementation. The transport operating society is in charged the management and the well functioning of the network. He has to advise and inform Bordeaux Urban Community. Finally, he is supposed to implement all the element which may improve the common transport development (training, quality management).

. RESULTS

The following chart presents some of the main planning propositions :

		Technical propositions	Organisational propositions
Transport Offer	Short-term regulation	- Increase the circulation of buses on the main lines - Save a part of the road only for common transport circulation	- Ban parking - Offer adapted to disabled users - Alternating circulation (according to car registration)
	Long-term regulation	- Extension of the main common transport axes (tramway) - Modernize common transport infrastructure - Vehicles employing sustainable energy	- Taxation for financing transport - Urban toll - "Integrating" pricing
Mobility Demand	Short-term regulation	- Improve the information on transport circulation	- Opening hours of public services - Pricing adapted to the social situation of the users - Develop road security policy - Organisation and better repartition of the work timetable and freight transport circulation
	Long-term regulation	- Regulate transport speed	- Scholar tickets - Localisation of collective equipment

Those proposals have been evaluated by the state in 2002. Here are the main results.

1.**« Fewer cars with more roads ? »** (Certu, 2002)

The diminution of the car traffic is one of the main failure of the PDU. Most of the town organize themselves on a dual scheme. On the one hand, the down town is organised on the « Rhenan » example. That is to say promotion of common transport , alternative and non polluting transport, and diminution of parking. On the other hand, peripheral space is closer to the « Californian » example characterized by numerous and large road infrastructure.

2.More partners but same actors

The second issue of the PDU is the creation of an effective actor network. First, we can estimate the implication of the different scale of public actor, the department, the region and the state as an undeniable success. What is more the recent participation of the civil society such as the users association, the Chamber of Commerce and Industry, the university can also be considered as a progress. Nevertheless, those links need to be strengthened. At the local level authorities, the evaluation reports of the PDU noticed a lack of communication between the different departments. For example, the elected representative working on transport does not work more with the elected representative in charged of urbanism. To conclude, if there are more partners now included in the transport decision there is still a need to improve the integrated dimension of the work.

3.Difficulty to decide on technical and measuring objectives

The last point concerns the operative dimension of the document. The very nature of the document need to be established : is it a spatial plan, an action programme, a repertory of project, a scheme , a charter ? What is more, as there is no technical definition of the PDU, there may be some mimicry phenomena. That is to say that the PDU use a stock of solution faintly differentiated. Moreover, as the schedule of repayment is absent and as the exploitation costs and engagement with the partner are non existent, some of the objectives are never turned into reality. It can be interesting to mention an exception to this observation : Montbéliard agglomeration, with whom Oradea Metropolitan Area has a partnership.

Nevertheless, for some agglomerations the PDU can be considered as an initiation to transport problematic. Indeed, it permits to target the transport problem, to activate new technical competences. Oradea Metropolitan Area plan transport may be developed in this way.

General **C**onclusion

Oradea Metropolitan Area is a very diversified space. It benefits from several resources such as the presence of a tourist pole based on thermal water, a favourable geographical location permitting to develop economy and commerce, but also a preserved countryside and quality natural environment. However, those different resources cannot stand alone, they have to be linked one another. Developing a coherent and competitive transport offer would act on this way. It would unable to support the existing dynamic centre and also to diffuse this dynamism to underdeveloped and peripheral spaces.

A closer analysis of the transport offer highlights various but inadequate transport infrastructures and equipments. Indeed, there are numerous means of transport but the infrastructure lacks maintenance and needs to be modernized. Likewise, the different operators are not organized, they are fragmented and need to be coordinated.

Summarizing the challenges Oradea Metropolitan Area will have to face in the transport field, coordination seems to be the main opportunity. Coordination can assume two different dimensions. First a structural dimension, it would mean to increase the transport offer towards the peripheral spaces ; and, at the same time, to regulate and diminish the downtown circulation. The second aspect is the institutional dimension, it refers to the network of actors and the established regulations. Oradea Metropolitan Area needs to improve those two dimensions.

First, at the short term, and focusing on the bus problem, it would be possible to increase cooperation between the private operators, more especially in the field of services (coordinate pricing, information, schedules).

Secondly, at a longer scale, and from a more global point of view, it would be interesting to create a document establishing the transport principles and objectives for the whole metropolitan area. To be really effective this document should adopt an integrated dimension, that is to say, to consider all the different fields interfering with transport such as urbanism, economy, environment. It must also include all the actors involved in transport : the different public scale (the State, the Region, the Department) and the civil society. Such a document would participate to a sustainable and balanced development of the whole metropolitan area.

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Annex A – The ring road project of the Metropolitan Area of Oradea