CIVITAS
Sustainable and smart mobility for all
2030

SUMP-PLUS Cross-sector coordination: LINKS

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Rationale

The travel patterns we observe in cities, both passenger and freight, are largely the result of decisions taken by goods/service providers and their consumers outside the transport sector – in other words, most transport is a ‘derived demand’, and not an activity undertaken for its own sake. Yet the transport system is expected to accommodate the transport demands that result from these outside influences, and attempt to limit the associated negative externalities – even though municipal transport planners have relatively little influence over the levels and patterns of travel generated by other sectors’ decisions.

Very little attention has been paid to examining how decisions taken in other sectors impact on passenger and freight travel demand, and give rise to the associated negative externalities, such as traffic congestion or public transport overcrowding, traffic accidents, poor air quality and CO2 emissions.

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Rationale

It is recognised that there is a lot that the transport sector can do to contribute to a vision of a carbon-neutral economy; but transport policies can only go so far, as most travel demand is generated by activities associated with other sectors of the economy. We therefore need to take a more holistic approach – and avoid one sector simply exporting its carbon to another.

A review of the relatively sparse international academic literature – across health, education, retail and tourism sectors in many different countries – finds some evidence of transport being considered as part of decision-making criteria for the location of new services and facilities in different sectors. However, there is little evidence that these decision-making models have been applied in practice. Real-life case studies indicate that transport impacts are considered on an ad-hoc basis within locational decision-making; however, there is little evidence of systematic coordination across transport and other sectors, or formal governance and coordination mechanisms.

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Learning outcomes

In this module you will learn about:

- The challenges of cross sector coordination, types of coordination and potential mechanisms
- Barriers and incentives for coordination
- Location decision models and criteria
- Service delivery strategies that can help drive the discussion between transport and other sector with the aim of reducing travel (via fewer and/or short trips)

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Challenges to cross sector coordination

Individual organisations and government departments generally struggle to look beyond their own thematic silo so that, in many cases, decisions about education, health and other service locations (or relocations) are taken without considerations of the associated impacts and costs for the transport network.

Often, factors such as land values and cost development turn out to be the dominant decision criteria and lead to the selection of unsustainable locations, usually out of town.

Transport impacts are treated as externalities, that are not the responsibility of the trip-generating sector.

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Types of coordination

In simple terms, coordination can be defined as the joining up of different sectors, groups and actors with the aim of producing a more comprehensive and coherent outcome that provides increased efficiencies or benefits for all involved.

We can find different forms of coordination:

- Administrative
- Policy
- Temporary or permanent

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Types of coordination

Administrative (or functional) coordination is concerned with ensuring smooth cooperation within and between organisations, whereas policy (or strategic) coordination involves the development of consistent policies and the formulation of strategies to implement them.

Administrative coordination is generally seen a crucial precondition for policy coordination. When considering the temporal dimension of coordination we can differentiate between temporary and permanent arrangements. In addition, political coordination is important In countries where horizontal and vertical coordination is ensured at the level of political parties.

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Levels of coordination

- Policy coordination: coordination at the level of strategic policy-making, i.e. the formulation of strategic policy documents in different sectors and how these relate to strategic policies in other sectors
- Planning coordination: coordination in relation to the detailed, temporal and spatial dimensions of policy implementation, e.g. through coordination at a more detailed level of spatial planning and how different facilities or infrastructures are related to each other, or
- Operational coordination: coordination in relation to more frequent, low-level decisions taken by professionals in each sector, including how professionals in different sectors communicate with each other

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Coordination tools

- Strategic documents and coordinated policy frameworks
- Ad hoc institutions and organisational platforms
- Hearings and workshops
- ICT tools
- Performance monitoring and appraisal

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Example of transport assessment as a coordination tool

A transport assessment is a requirement in many countries for building developments to be granted planning permission. It requires the developer to analyse the possible impacts of the proposed development on the transport system and predict and mitigate future problems.

The UK Department for Transport, for example, has issued guidance regarding the threshold of the size of developments that need to provide an assessment based on a set of agreed objectives.

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Example of transport assessment as a coordination tool

The UK guidance recommends that a Transport Assessment should take into account the following objectives:

- to reduce the need to travel, especially by car;
- to tackle the environmental impact of travel by improving sustainable transport choices;
- to promote accessibility by all modes of travel, in particular public transport, cycling and walking;
- to ensure as much as possible that the proposed mitigation measures avoid unnecessary physical improvements to highways.

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Barriers to coordination

- Absence of management mechanisms for policy integration, at the senior level of policymaking
- Differing organisational cultures across departments, including language specific to different professions
- Need to adapt policy measures to fit the focus of external funders (e.g. national government) prevented formulation of integrated cross-sectoral policy strategies
- Lack of data on how sectors impact each other
- Insufficient staff time

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Incentives to coordination

- Policy integration among senior management professionals and overarching, integrated local policy strategies
- Environmental impact assessments, evaluating the sustainability of plans and proposals from different sectors
- Legislative requirements from national government, e.g. delivering sustainable development through the land use planning process
- Secondments and joint projects
- Early cross-sector collaboration when major investments or changes in policy are planned

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Incentives to coordination

- Greater consistency in business cases and appraisal methodologies, at least across the public sector
- More high-level government policy determined at a cross-sector level, with clear guidance on each sector's joint responsibilities for delivery
- Shared targets across sectors (e.g. carbon emission reductions)
- 'Whole place' community budgets, covering several public sector operations

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Location decision criteria

Determining the best locations for new facilities often can turn out to be a difficult decision. The acquisition and development of a new facility is generally costly. Moreover, whereas new facilities are expected to remain in operation for an extended time, multiple contextual changes and events occurring during the facility's lifetime can drastically alter the appeal of a particular site, thus turning today's optimal location into tomorrow's investment blunder.

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Location decision criteria

During the past decade, due to the growing interest in sustainable development, environmental objectives (e.g. to minimise environmental impacts, such as the release of transport emissions, generated as a result of the location decisions) have started being integrated into location-allocation models.

While usually the selection criteria is done by the private sector, it can still be influenced by the public sector following the type of coordination mentioned above. Specially if the sectors' services are linked to the public sphere, like education and health.

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Example of location criteria: Health

Many drivers of change have been affecting hospital service configuration in the past few decades (demographic changes, changing patterns of disease, innovation and technology and new treatments, new medical education, etc). These affect the criteria to locate health facilities as they influence the response to health needs.

At the EU level, the most important drivers of change seem to be represented by medical specialisation, constrained resources and rising demand which, in recent years, have been the main reason for a trend towards the centralisation of hospital services.

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Conceptual framework for cross-sector analysis

The proposal to enhance coordination between the transport sector and the other, trip-generating sectors of the economy is based on the following principles:

- Travel demand is derived from consumption and production activities
- The need to focus on accessibility rather than mobility
- Special consideration of the temporal dimension to access goods and services
- Consideration of non transport barriers preventing sustainable travel choices, such as financial barriers, perception or knowledge of choices.
- The multi sector ramifications of policy decisions taken in one sector, understanding the impact such decisions have on trip generation
- The influence of culture and consumer choices that evolve over time

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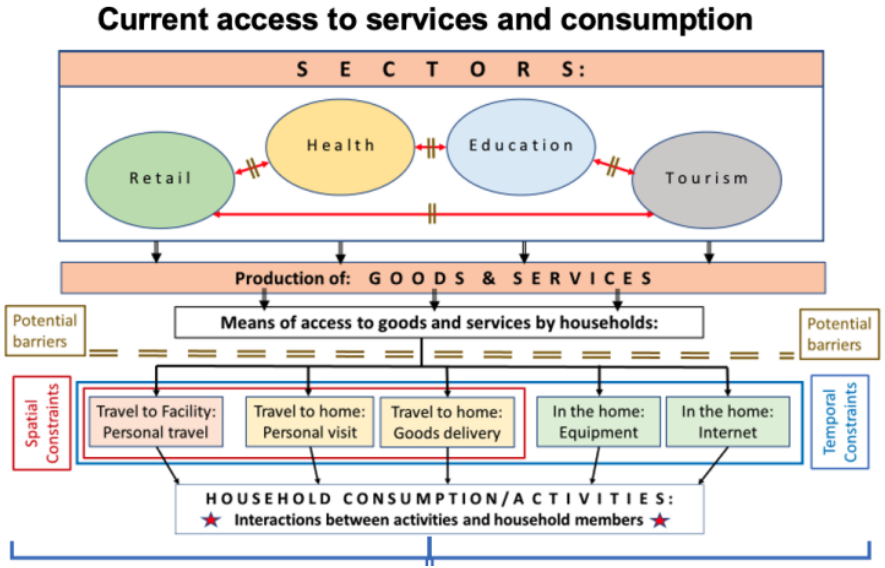
Conceptual framework for cross-sector analysis

The figure starts with the representation of several sectors of the economy, that provide goods and services to households, which are consumed in various ways through activity participation – from consuming food, to watching television or learning online.

The red arrows indicate links between these sectors and the existence of various barriers to effective cross-sector collaboration. The issue arises of how households can access these various goods and services.

Five types of access are identified, including personal travel to a physical facility, the conveyance of the service or good to the home (involving a personal or freight trip), and provision within the home, either physically (e.g. food preparation relying on a cooker and refrigerator), or digitally via the internet (e.g. on-demand streaming of a film).



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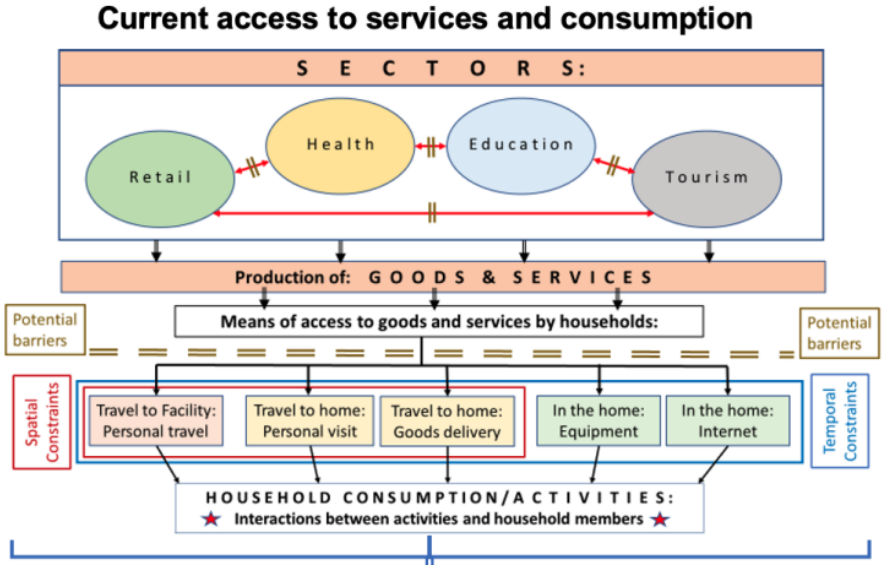
Conceptual framework for cross-sector analysis

There may be various space (shown in red) and time (in blue) constraints and other barriers that make it difficult for a household to secure some forms of access, both those originating within the transport sector and outside.

Collectively, the various forms of household access to goods and services enables a daily pattern of consumption and activity participation, that results in various types of interactions both between activities and among household members and other people and organisations.

Finally, all this activity takes place within a sector-led set of ‘sociotechnical’ clusters. As these change over time, they can give rise to major modifications, or sometimes discontinuities, in consumption and activity patterns, many of which are presently unanticipated.



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Identification of service delivery strategies

As noted, cross sector coordination is not always easy and the mechanisms that have been suggested here represent a step forward to avoid trips that impact on the transport network.

To promote cross sector thinking, a framework to identify options for delivery of services has been produced, for use in discussions between transport and other sector officers, as a starting point.

Forms of service delivery	Types of service delivery	Consequences	Travel consequences
1. **Physical facilities – fixed**	Local vs. centralised sites Small vs. large, or specialist, facilities	Affects size of catchment areas to access services	Affects trip lengths and the range of modal options
2. **Physical facilities – mobile**	Providing some services at neighbourhood level (e.g. banking)	Services available locally, but with very limited operating times	Enables most people to access the facility on foot
3. **Delivering services to people's homes**	Personal services	Home care, hairdressing, etc. provided at home by professionals	No household trip, but personal trip to the home by service provider
	Goods deliveries	Food, medicines, etc.	No household trip, but freight delivery to home
4. **Provision within the home**	Physical equipment	Availability of household cooker, washing machine, etc.	No household trip required to obtain hot food, clean clothes, etc.
	Digital infrastructure	Computer, internet connection	No household trip

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Applicability of cross-sector coordination LINKS

AVOID:
- Substitute digital for physical meetings
- Provide equipment in-home
- Localise facility provision (shorter trips)

Trip-generating sectors: education, health, leisure, retail..

SHIFT:
- Support/encourage shift to sustainable modes
- Consolidation of freight

Governments, transport providers and major trip attractors

IMPROVE:
- Decarbonisation of vehicle fleet
- Increase energy efficiency

Industry, utilities and transport providers

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Example: Transport & Health

Here successful measures to reduce the need to travel to access healthcare are directly embedded in health sector strategies. These include measures to:

- Reduce the volume of personal travel from home, by: substituting physical meetings with on-line consultations; providing services within the home; making prescription deliveries to homes, to replace visits to pharmacies; and provide in-home visits.
- Shorten health-related trips through the localisation of some types of health facilities.

Accessibility and mobility framework		Transport benefit	Interventions (examples included)	Impacts		
			Type	Customers/ patients/ visitors	Staff	Logistics
LINKS	'AVOID' travel	1. Reduced volume of travel	Internet communication	NHS Direct Remote consultations		
			In-home service provision	Dialysis machines		Home delivery
			Home deliveries	Prescriptions		Home delivery
			Health-related visits to homes	District nurses		
		2. Shorter health-related trips	Localisation of health facilities	District health centres		Local deliveries

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Key takeaways

Strengthening cross-sector Links can provide many practical benefits for cities:

- Improving the everyday life of citizens – ensuring that they can access public services, such as healthcare and education, using sustainable transport systems. In sectors like tourism, actions by the private sector that impact on the transport system need to be coordinated with public sector mobility strategies, to ensure sustainable development for the city as a whole.
- Encouraging dialogue with other sectors should help to reduce the costs of transport infrastructure provision and its operation, and generally increase the efficiency and effectiveness of urban mobility systems. It could also potentially identify new sources of funding for transport measures from the users that stand to benefit most from their provision.
- In cities aiming to achieve net-zero CO^2 emissions, it is important to look at this from a multi- and cross-sector viewpoint, to avoid carbon reduction business plans in one sector simply exporting carbon to the transport sector (e.g. by building zero carbon facilities on the edge of the city that is reliant on access by private car) – or to another sector. This is particularly important in the context of the 2030 and 2050 climate targets in the EU Green Deal.

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Key takeaways

- When designing coordination mechanisms, aspects to take into consideration are: the levels of strategic policy-making, spatial and investment planning, and continuous operational decision-making; the appropriateness of temporary vs permanent and hierarchical vs network arrangements; and the specific practical mechanisms through which coordination can be achieved. While the many barriers to coordination ‘across silos’ are recognised, much less is known about the types of incentive structures that could facilitate it.
- Recent developments in ICT and vehicle technologies are reshaping the way that services are delivered in different sectors, and thus the consequent impacts of those sectors on transport systems and the substantive issues that require coordination

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