CIVITAS SUMP-PLUS: CREATE as a theoretical foundation

Much of the approach being developed and applied in CIVITAS SUMP-PLUS builds on the concepts and framework developed in CREATE, a CIVITAS project that concluded in August 2018. A brief summary of how the two projects relate is provided below, whilst the full CREATE project summary is available here.

Transition pathways that encourage sustainable mobility and liveable cities

CREATE studied how transport policies in five Western European capital cities (Berlin, Copenhagen, London, Paris and Vienna) had evolved from the 1960s to 2010s, which it broadly characterised as a three-stage transition - from 'Stage 1' to 'Stage 3'. This transition involved an initial increase and subsequent decline in the modal share of private cars, associated with an accompanying shift in the predominant policy emphasis, from Stage 1 (car-oriented) to Stage 2 (sustainable mobility-oriented) to Stage 3 (place and public space-oriented) – see Figure 1.

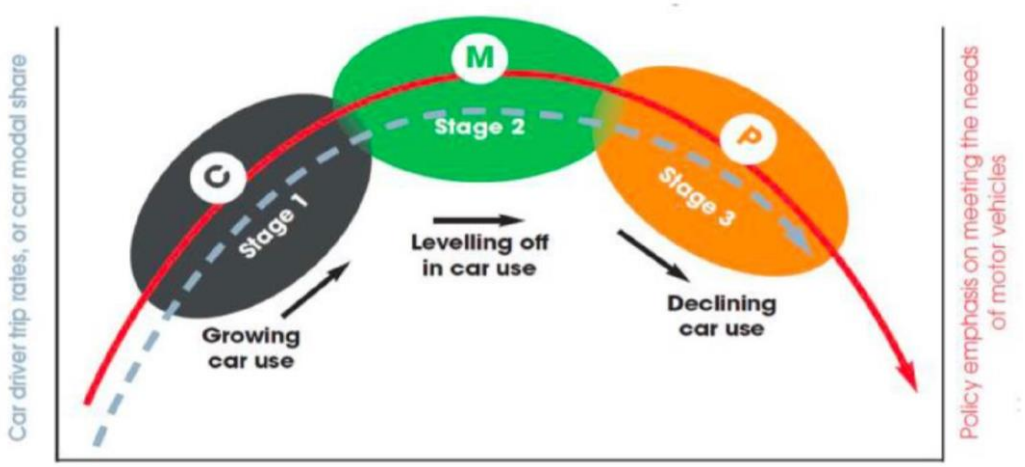

Figure 1: The CREATE Stage model - a general characterisation of mobility transitions. © CREATE

Each 'stage' comes with its own set of policy priorities, policy measures and indicators of success, as shown in Figure 2.

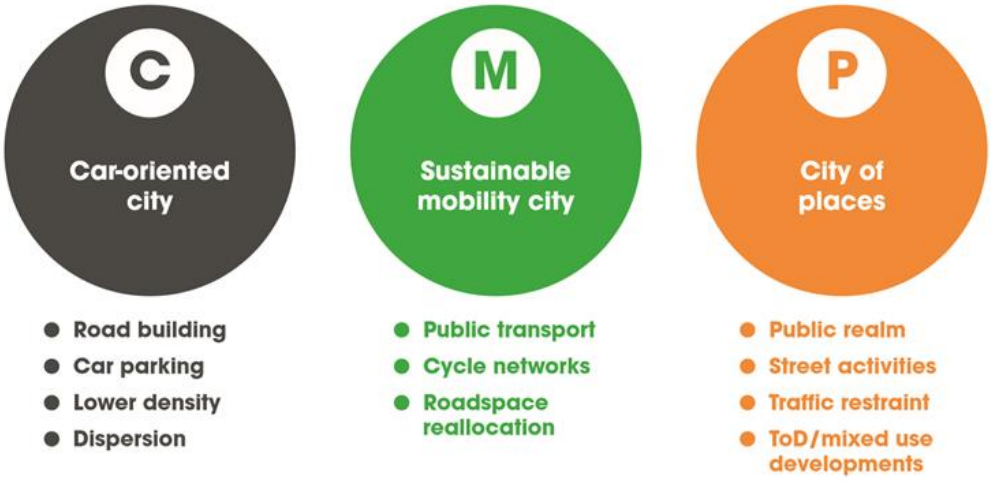

Figure 2: Policy measures implemented to support each stage. © CREATE

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CREATE recognised that this is a major simplification and that, in practice, there are competing perspectives championed by different political parties, pressure groups, etc. Thus, transitions may not be smooth or linear, and may at times 'go into reverse'.

If the overall shift towards sustainable mobility (M) and place-based liveable cities (P) is to be achieved, pathways need to be carefully designed that address twenty-first century conditions and cities' unique needs.

That is what SUMP-PLUS sets out to do. Otherwise, there exists the risk that the rollout of automated, electric cars might lead to a resurgence of Stage 1 mindsets. The CREATE project also set out the 'eight Ms' – factors that contributed to the success of cities who moved from Stage 1 (via Stage 2) to Stage 3.

Mood	Public, political and professional acceptability	**M**echanisms	Engagement, enforcement, administrative, delivery: cooperation and coordination
Motivation	Trigger for change (e.g. deterioration in traffic conditions)	**M**easures	PT and cycling investments reallocate road space
Mass	Capacity building deepen and broaden the skills base	**M**ethods	Better forecasting and appraisal methods
Momentum	Building on success: pilots and policy windows	**M**oney	Funding mechanisms

Figure 3: The 'eight Ms'. © CREATE

The transition pathways devised, mapped out and tested in SUMP-PLUS cities will draw on these eight factors.

Linking mobility to wider urban systems

If mobility and transport continue to be treated as individual policy fields, however, then the impact of such pathways is limited. Cities must look to engage with the primary sources of travel demand that put pressure on transport network. These are found in other sectors, such as retail, health and education.

CREATE suggested that this trend has already started in some cities and speculated on the emergence of a 'Stage 4' (see Figure 4). It characterised this as being associated with increasing integration, both across the mobility sector – through initiatives such as MaaS (Mobility as a Service) - and across sectors, as is being promoted through the notion of the 'smart city' and is explored within the 'Links' component of SUMP-PLUS.

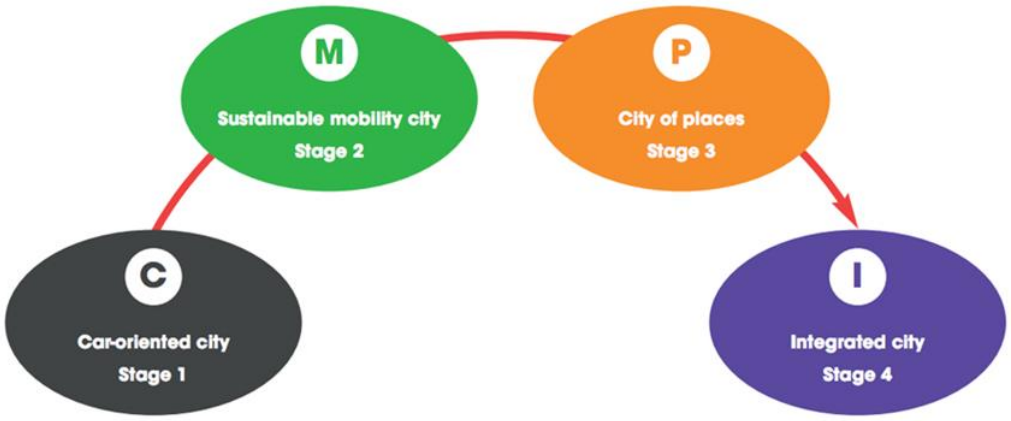

Figure 4: A possible 'Stage 4': the Integrated city. © CREATE

Figure 5 illustrates the rationale for taking a cross-sector approach by showing the potential disadvantages of a non-transport policy decision – in this case a health facility consolidation on the edge of a town - on travel patterns and other urban sectors. Currently, these other sectors tend not to consider the 'transport consequences when making their service delivery and facility location decisions – making it more difficult to promote sustainable mobility and liveability policies.

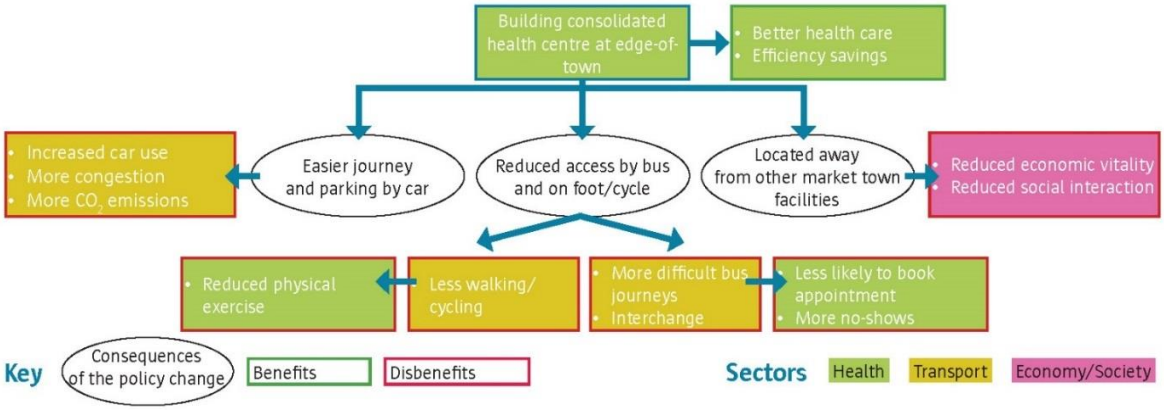

Figure 5: Disadvantages to not adopting a cross-sector approach in urban mobility planning

The challenge

One of CREATE's core messages was that many major Western European cities – and larger cities in other parts of the world with established high car ownership levels – took half a century to transition from a car-enabled to a car-constrained policy framing. In the process, they built many highway structures (from elevated motorways to elaborate one-way systems) that have subsequently been removed at considerable cost.

Given the current state of the world - environmentally, socially and economically - there is a need to greatly accelerate the transition to sustainable and liveable cities. The question addressed by SUMP-PLUS is: how to develop Pathways and Links in order to speed up and short-circuit this process?