Chapter 6 Behavioural Change in Local Authorities to Increase Organisational Capacity



Ann-Marie Nienaber, Sebastian Spundflasch, and André Escórcio Soares

Abstract Local authorities' transport departments face extraordinary requirements regarding future mobility planning that affects and disrupts their internal business models and institutional logic in substantive ways. In this chapter, we highlight how organisational change can be implemented in local authorities to allow organisational capacity to increase and to enable employees to cope with the increasing expectations and requirements of future mobility planning. Our bottom-up approach is based on a socio-technical approach, taking into account both social (e.g., changing social behaviours or values) and technical aspects (e.g., new technologies). Applying Kotter's Eight Stage Process, we outline the implementation process of organisational change followed in seven local authorities in Europe as part of the SUITS project. The multiple case study approach allows us to indicate the crucial points along the path towards organisational change and to provide a step-by-step guide for successful implementation of organisational change in local authorities. We provide best practice examples from our work that may help other European cities increase their organisational capacity and be prepared to cope with the extraordinary requirements in relation to future mobility planning.

A.-M. Nienaber (⊠)

Centre for Trust, Peace and Social Relations, Coventry University, Coventry, UK e-mail: ann-marie.nienaber@coventry.ac.uk

S. Spundflasch

Institute for Media Technology, Technische Universität Ilmenau, Ilmenau, Germany

A. E. Soares

Institute for Advanced Manufacturing and Engineering (AME), Coventry University, Coventry, UK

© Transport for West Midlands 2023

A. Woodcock et al. (eds.), Capacity Building in Local Authorities for Sustainable Transport Planning, Smart Innovation, Systems and Technologies 319, https://doi.org/10.1007/978-981-19-6962-1_6

6.1 Introduction

Mobility planning has become one of the key topics for local authorities over recent years [1]. Local authorities' (LAs) mobility or transport departments are faced with a variety of political and societal challenges in relation to future sustainable mobility planning.

On the one hand, the mobility field has undergone significant changes in recent years and is becoming increasingly complex, with a paradigm shift to Mobility as a Service (MaaS) and an ever-increasing amount of innovative and service providers entering the market [2]. On the other hand, citizens' mobility requirements have changed considerably. Citizens are more aware of health and sustainability issues associated with transport modes, demand resource efficient travelling and wider accessibility and inclusivity. Accordingly, many LAs, especially in small-to-medium cities are facing challenging situations, affecting and disrupting their business model and their institutional logic. This threatens public sector employees in a number of substantive ways. The changes require new organisational structures and processes which challenge employees to work in new ways, including using techniques and tools they have not used before. Further, new roles and responsibilities are needed (especially if a city commits to producing a SUMP), which may make former routines obsolete and require increased flexibility and motivation. In such situations, parallel and transparent organizational change is needed [3, 4].

In this chapter, we adopt a socio-technical approach to change. This approach is underpinned by socio-technical systems theory that recognizes the importance of cognitive and behavioural change when implementing technological innovation [5–7]. Along with Kotter's Eight Stage Process for organisational change published in 1996 [8], we want to outline how organisational change was implemented in different LAs in Europe in the frame of the SUITS project.

Kotter's Eight Stage Process is one of the key models in the literature of change management [8], but there is a lack of real-life case studies showing clear implications for practice (e.g., [9, 10]) with few exceptions (e.g., [11–17]). Furthermore, there is a scarcity of documented experience in the field of public administration about implementing organisational change using this process [10]. Therefore, SUITS contributes significantly to research and management practice in the field of public administration.

The structure of the chapter is as follows. After showing the need for organizational change, we describe Kotter's model of organisational change. After a short theoretical description of the different steps, we focus on the lessons learnt when we started to implement this process with the LAs in SUITS. We provide several best practice examples and show practical guidelines about how to achieve successful organisational change to increase local authorities' capacity to plan and implement sustainable mobility.

6.2 Theoretical Background

6.2.1 Organisational Change in Local Authorities

Implementing organisational change is a challenging undertaking, as the financial and personnel costs are relatively high, and success rates alarmingly low [18], despite best efforts. Change management needs to be focussed and systematic, following a structured and transparent process which addresses, technical and behavioural issues. Most research has shown that the success of any change depends to a large extent on the employees of an organisation. An organisation or its management can initiate change, but its implementation is carried out by employees [19]. Several case studies provide evidence of the importance of "human factors" in organisational change [20] thus organizational change is often called "behavioural change" as employees have to change their behaviour to make the change happen. Understandably, employees' commitment to change has been identified as one of the decisive enabling factors [21].

Local authorities and especially their mobility departments have to adapt rapidly and continuously new skills and behaviours to cope with challenges relating to sustainable mobility and the drive for smart cities, informed by integrated, real time data. Organisational change is essential if they are to meet new climate change targets and harness the potential of smart city initiatives for the benefit of all their citizens.

Global climate change (and more recently the COVID pandemic) requires actions at the local level, with LAs assuming a central role on the critical examination and reorientation of mobility goals and strategies. LAs and their transport departments must become more effective and resilient to organisational change when developing and implementing new transport measures and strategies [3]. In this context, it is imperative to develop capacity to meet new challenges, making sure that full advantage can be taken of developments in areas such as innovative transport schemes, innovative financing and procurement, urban freight or safety and security. However, for transport measures to be successfully implemented, it is not enough to change the technology or technical aspects; it is the human side that needs even more attention, as argued by [3, 20]. Most organizational change management programmes end up failing when they focus solely on technological change, ignoring the importance of social and behavioural aspects.

By bringing technological/technical and social/behavioural change together, organizations, and in this case, local authorities, can achieve better operational performance. Socio-technical systems combine the human, social, organizational, as well as technical factors when designing organisational systems [22]. The leverage of the knowledge and capabilities of employees results in better operational performance as they become better placed to deal with technological uncertainty, variation and adaptation [23], and more resilient when to organisational changes. Ultimately, bringing together social and technical change will help to reduce the gap between social and technical capability.

6.2.2 Implementation of Organizational Change

When implementing organisational change, it is important that local authorities are open to input from their employees in the design of both social and technical systems, e.g., changing social behaviours or values that are anchored in their organisational culture and changing systems such as technologies or guidelines local authorities' employees have to work with in future. There is evidence that employees benefit from the challenge, variety, feedback and teamwork involved in the development of the organisational change process as change enhances, for example their skill set [23], and they may gain greater insights into the organisation and increase their stake and commitment to it. Therefore, it is important to get the employees on board at the start of the process.

In line with SUITS' overall objectives to increase capacity of mobility departments, employees and stakeholders to implement sustainable mobility measures and strategies, an organizational change process was initiated in seven local authorities taking into account technical and the social capacity. While the technical side of the organisational change comprises new technologies and services regarding innovative transport schemes or financing options, the social side of the organisational change focuses on the employees' openness and readiness for change.

Our first design of an organizational change process was built on the Eight-Step Process for Leading Change outlined by Kotter in 1996, [8] (see Fig. 6.1). This model is very transparent, clearly structured and practically oriented. Above all, it can be easily communicated to different change actors, facilitating the creation of shared meaning and ultimately contributing to the effectiveness of the change programme. The eight steps of the model are outlined below before discussing how this was used in the project.

Step One: Create urgency

First of all, a sense of urgency has to be created amongst employees. For SUITS, it was necessary to highlight why sustainable mobility planning was important, how change could be created and the benefits this could bring. This step creates the "need" for change, as opposed to a "want" for change.

Step Two: Form a powerful coalition (team)

A strong, proactive and influential coalition needs to be built from employees with a range of skills and experiences, across the different areas and departments involved in mobility planning to drive and support the change process. The team itself becomes a role model for the wider organisation, helping to spread messages throughout the organization, delegating tasks and ensuring support for the change organisation wide. Key to this is the appointment of an influential and widely respected change agent in the organisation, who has the backing of, and ability to influence, senior managers.

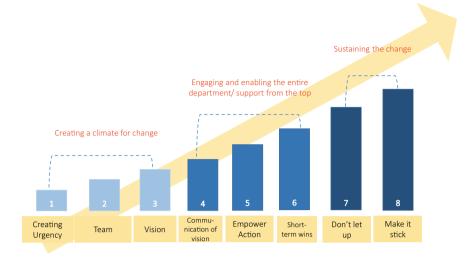


Fig. 6.1 Implementation process (based on Kotter [8])

Step Three: Create a vision for change

An inspirational, far reaching and comprehensible vision should be jointly developed by those immediately concerned with the change (in this case the mobility departments, change agent and local authority). It should be supportable by the whole organization.

Step Four: Communicate the vision

A vision that is developed but not communicated will not be known. Thus, the vision should be communicated throughout the whole local authority and understood by its employees. It should be continuously communicated in different ways in order to rise above competing messages.

Step Five: Empowering broad-based action

Empowering employees requires active listening, investing in them through training, and making them responsible for major accomplishments. Empowerment contributes to increased levels of employee engagement, and more specifically in their engagement in the change process, which is important in guaranteeing success. To increase employee empowerment, existing obstacles such as organizational structures, skills deficits, systems and supervisors must be addressed.

Step Six: Create short-term wins

Organisational change needs time, and few rewards may be visible at the start of the process. Therefore, it is most important to create opportunities for quick wins and the celebration of these to keep the employees' motivated to support ongoing processes.

Shorter-term targets are useful tools for motivation and direction. Using these wins to justify investment and effort can help to re-motivate staff to continue backing the change.

Step Seven: Build on the change

Many organisational change programmes fail because they lack an end point, continuation plans, or are not self-reflective. Organisational change is a continual process in which, in this case, the LA should keep setting goals and analysing what could be done better for continued improvement.

Step Eight: Anchor the changes in corporate culture

For a change to be sustainable and successful, it needs to be anchored in the corporate culture. The implemented sustainable transport measures, as well as change procedures and principles must be become an intrinsic part of the organisational culture of the LA, for example through guidelines that are known and utilised. The changes, and the need to evolve, must become part of the core way of working to have a lasting effect.

6.3 Implementing and Gathering Data on Organisational Changes in the Local Authorities

As part of the SUITS project, the mobility or transport departments of seven local authorities, i.e., Kalamaria (Greece), Valencia (Spain), Alba Iulia (Romania), Rome and Turin (Italy), Palanga (Lithuania) and West Midlands Combined Authority (UK) nervously embarked on a change journey to increase their capacity to engage in sustainable mobility planning. Details about each LA have been given in Chap. 3. The change process was conducted at their own pace, with each city being supported by a delegated project member from outside their organisation, under the leadership of Ann Marie Nienaber. Their journeys were recorded over the course of the project, enabling insights to be drawn from each case study which allows us to explore change management in this context and to draw similarities between organizations (e.g. in terms of barriers and enables) [24].

6.3.1 Data Collection

In order to continuously assess the effects of the change process, data was gathered through semi-structured interviews (using an interview protocol derived from Kotter's model), documentary analysis of minutes of meetings between the project team and city representatives, reporting sheets or work papers, and 11 workshops with city representatives.

6.3.2 Data Analysis

The aims of the analysis were to:

- Understand how the change process was conducted in each authority,
- Name, identify and discuss amongst the group barriers and enablers to change in action learning sets,
- Identify common patterns across local authorities which could be used to provide guidance to other local authorities,
- Demonstrate the generalizability and applicability of Kotter's model across very different transport departments,
- Create a replicable model for use after the project to help transport departments become more innovative, flexible and resilient, especially in relation to their development of sustainable transport plans.

Data analysis included familiarisation with the documents and transcripts followed by a coding process [25] and further analysis as suggested by the case study approach in particular pattern coding [24, 26]. The identified patterns are described in the following section.

6.4 Findings and Learnings

This section highlights the key results and learnings related to the implementation of organizational change to enhance organisational capacity during the SUITS project. As previously mentioned, the lessons learned were drawn from practical collaboration with the cities that carried out organizational change during the project. Most insights were gained from the 11 workshops held with representatives of the cities, in particular the transport or mobility departments.

The change procedure was critically reflected upon by SUITS' members and local authority employees during the whole implementation process and individually adapted to the particular needs and requirements of each local authority through use of " 360° reflection and feedback circles".

In total 104 participants took part in these workshops. In addition, semi-structured interviews were conducted with 2–3 people from each local authority took part. (N = 17). The lessons learned are presented in line with the eight steps for organisational change as outlined in an earlier section of this chapter.

Increase urgency—Step 1

The very first step towards making a change, is raising awareness of the need for it. This required a "'benchmark" study of the weaknesses and strengths, opportunities and risks of each local authority (as outlined in Chap. 3). This analysis allowed the design of a systematic procedure for the implementation of organizational change.

From this, and in discussion with LA representatives, the key persons suitable for implementing change were identified. A pre-requisite being that such a person had to have knowledge of the areas/personnel in which the changes were required.

The identification of the "ideal" change agent was recognised as one of the most important contributory factors in creating and driving though successful changes. A change agent may be internal or external to the organisation, but in either case they must have strong relationships and trust amongst the key decision makers in the organisation. We found that the lack of direct relationships with the chief executive/mayor or departmental managers was a significant impediment to initiating change processes and the rate of change. Without senior management attention for the necessity and implementation of change and their continued support, existing bureaucratic organisational structures can stifle innovation and opportunities for change. Therefore, the change agent should have the power to directly contact senior management and gain support when needed, e.g., to change organisational structures or implement new working practises.

the change agent's role is very challenging but so decisive to implement change. In my eyes, a very important decision to be made in every city [Deputy Mayor, City of Kalamaria].

In terms of personal attributes, the change agent needed to be flexible, proactive, results oriented, supportive of the changes and possess the necessary social skills to work with employees from all areas likely to be effected by change—so that they buy into, contribute to, and trust innovation.

As people respect courage and accountability, a change agent must take responsibility for his or her LA. A chief executive/mayor has to make decisions that go against dissenting opinions and this can cause conflicts, but doing so with conviction and being ready to handle the consequences will ultimately demonstrate that the local authority's intentions are motivated by the best interests of the city, thus gaining the trust of their employees and wider society.

In creating change, it was seen as helpful to tie specific priorities to overall organisational goals. Being able to see, contribute to, and influence the direction of travel of the organisation, required the change agents to have a level of maturity and standing within the organization and local network. The change agent has to be able to explore perspectives, be open to ideas, and take them into account when looking for solutions. This will help in getting buy in to a change; people want to feel that others are listening to their ideas. Those who do so develop stronger relationships with their people by gaining trust [27].

Build the guiding team—step 2

As change agents are more powerful when they are supported by a team, the second step requires building a coalition to support change and the change agent's activities at an operational level. The team itself, should be a role model for the wider organization, helping to spread messages. Delegating tasks and ensuring support for organization-wide change needs strategic thinking.

Our findings indicate that the best results will be achieved from a diverse coalition, built from employees with a range of skills and (life) experiences and from different

departments. In some cases, depending on the objectives pursued, it may also be useful to expand the coalition externally. Especially when it comes to topics for which there is little awareness internally, external experts can provide important knowledge and evidence.

To achieve this, the Change Agent of the City of Torino has built the working team 'MaaS', Mobility as a Service. [...] At the beginning, the managerial level of the city perceived MaaS as a personal initiative and, for this reason, it was cold on this topic. The only way to proceed was by building a technical team mainly composed of external experts (technological companies, ICT development companies, University). [...]. Over the last years, during SUITS project, the team started to meet regularly. Now the importance of MaaS is evident, it is seen as the solution to many mobility problems and it is not perceived as a personal initiative anymore. [Representative from the Transport department of the City of Torino].

Get the vision right—step 3

Our findings highlight that the development of a vision is often underestimated or not well understood. A vision must be easy to understand to ensure support from the whole organization, "inspirational" to have maximum effect and easily communicable. In the following, we present the vision of the City of Palanga and the argument for its development. The vision of Palanga is: "City in nature, created by its citizens". The change agent of Palanga argued as follows:

This vision has been chosen because Palanga is a resort city and synergy with nature is very important. It is also very important to ensure 'city comfort' not only for the resort guests but for the locals as well. In order to ensure that the population remains satisfied with urban development and smart mobility solutions, it is necessary to involve the population in the selection of the most appropriate alternatives for these measures. The Palanga local authority is aiming to involve citizens and business partners more closely in the decision-making process. [Change Agent, Palanga].

Almost all LA representatives reported that it was initially very hard to convince senior management to communicate a vision that reflects their city 's engagement with sustainable transport measures. The following statement was made by the change agent from Alba Iulia and reflects the general challenge related to the vision:

As with all internal processes, there was some reticence at first, however in time all the departments understood the need and the relevance of the change vision in order to foster a new way of working together. The experience overall was a good one as it brought an increase in cooperation between the different departments at municipality level [Change Agent, Palanga].

The challenge is to create a vision that it simple, understandable, far reaching (so that it does not have to be changed continually) and precise, so that it does not leave too much room for interpretation.

Communicate to buy in—step 4

A vision that is developed but not communicated will not be known, supported or implemented. General awareness and enthusiasm needs to be created for the goal

behind the vision. The "vision" should embody the need for change in such a way that everyone can understand that change is needed and the long-term targets (e.g., in this case, for example zero emissions or sharing travel data).

Definition of concrete activities to enable the overall goal to be achieved requires the support and contribution of all employees. Everyone should be invited to participate, consider and suggest concrete steps that could be implemented in their workspace or organization. If proposed changes completely ignore the needs and abilities of the employees, then it will not be sufficiently supported at the work level.

All seven LAs reported that this step was of great relevance, but one of the most challenging. A process-oriented approach was the most promising way of communicating the vision. In the first step, the vision is communicated to those departments and employees that will be most directly affected (e.g., transport and planning departments and procurement), then those departments that are indirectly involved are informed, before moving out to the wider local authority.

Two aspects were found to be helpful when communicating the vision. Firstly, the vision itself needs to be clear and transparent so that it can be easily understood by all employees. Other departments should not necessarily be expected to fully support the vision as they will have their own, perhaps conflicting priorities. This can become a major barrier to the change process, accordingly great attention must be given to it by the change team, looking for synergies and win–win scenarios. Secondly, an "evidence-based" approach should be used to back up the vision, e.g., using good practice examples, feasibility studies, data, cooperation with interest groups and citizens. In the following, the statement of the change agent of Alba Iulia summarises the key learnings of this step.

The change vision represented a process which began with the starting of the SUITS project and which continues till today. The vision was communicated in various meetings/workshops/seminars organised within the different departments of the municipality by the "innovation team" [guiding team]. Most of the departments were involved in the process which meant that they were either involved directly or indirectly in the actions and processes foreseen. [Change Agent, Alba Iulia].

Empower Action—step 5

Working with SUITS project members through training, development and knowledge exchange helped to empower change agents and guiding teams to drive organizational change in their local authorities. Based on a list of pre-selected "challenges/themes" in sustainable mobility planning, the guiding teams of each city selected the key priorities they wanted to target in the coming years, e.g. understanding and applying innovative financing methods, effective project management and monitoring, or citizens' participation (for detailed information regarding the development of these "challenges" see Chap. 3).

This selection helped the guiding team to focus on areas of interest and importance for sustainable mobility planning. While we cannot recommend switching the challenges to be tackled very often, in some cases a change may be necessary due to evolving technologies, environmental changes or other factors. To empower action,

Challenge	Target	Key performance indicator
Understanding and applying innovative financing methods	Staff understanding innovative financing methods	No. of staff attending training on innovating financing methods and reading guidelines on innovative financing methods
	Projects using innovative financing methods	No. of projects using innovative financing methods

Table 6.1 Challenge, Target and Key Performance Indicator for the organizational change of the West Midlands Combined Authority

it was further necessary that each local authority agreed on clear targets and measures (key performance indicators) for each identified challenge to be able to create and show impact. This was decisive also to show progress and success to the decision makers in the local authority and also to their stakeholders and the wider society.

Using the example of the West Midlands Combined Authority, the following table shows a selected challenge, the target pursued and a defined key performance indicator to measure impact (Table 6.1).

Create short-term wins—step 6

The very word "change" creates uncertainty and anxiety, especially when it is introduced by an external party, as in SUITS. Here, it should be pointed out that although organisational change was a fundamental part of the project, organisational churn within some LAs meant that those who had authorised the project at the proposal stage, were not in place when the project started. This is similar to the situation of external management consultants coming in suggesting sweeping changes, with those not involved in implementing, or affected by change removed from it.

In the SUITS process, after the capacity benchmarking, (Chap. 3) and vision have been agreed, change can take place in small steps, based on suggestions from within the organisation. Changes are grounded in the experience and culture of the employees. The goal(s) should correspond to the capacities of the departments, they should be achievable and, measurable.

In order to keep motivation for change high, small steps that lead to short-term success are meaningful, important and celebrated. Thus, organisational change is initiated with concrete, target-oriented activities by the guiding team in close cooperation with senior management, leading to clear achievable results.

While working with the mobility departments, it became clear that one of the biggest challenges is to keep up momentum. Very often daily-based operations overlap with the long-term strategy. The implementation of sustainable transport measures requires a lot of creativity and stamina, pulling together several threads to provide integrated solutions.

The following example from the West Midlands Combined Authority (UK) shows activities that helped to keep momentum and allowed celebration of small steps during the long process of organisational change.

To foster knowledge exchange inside their organisation, West Midlands Combined Authority organised, for example in-house workshops, on the one hand with external trainers, but also internal workshops in which staff jointly tried to develop ideas for concrete activities. Furthermore, employees were encouraged to use a special teamwork software to share and discuss issues they found on specific topics of sustainable mobility. Weekly newsletters were created and sent to employees. These contain, for example news about ongoing projects, information about concrete team activities, information related to questions such as what challenges need to be tackled, what knowledge is available and what is needed. This created and still creates a general awareness for specific topics as well as the entire change process. Furthermore, these meetings together with the newsletter allowed the team to announce and celebrate the achievement of little steps during the long-term process of making organisational change to implement sustainable transport measures.

Creating short-term wins was intensely discussed with the LAs. In various workshops, regular briefings took place, where the project team and LA representatives discussed intermediate results, experiences and new ideas. This also involved defining concrete targets and performance indicators for the achievement of objectives as well as scaling and structuring the projects. The following example provides an overview of the goals set to achieve a capacity change on a selected challenge, as well as the appropriate key performance indicators to measure success. Ideally, all activities in a LA should be aligned to one of the selected challenges. The following example (see Table 6.2) highlights the participation of a local authority in the European Mobility Week and demonstrates how it helps to improve citizen's participation in line with the local authority's challenge, target and key performance indicators.

Don't let up—step 7

The credibility of an organisational change depends upon whether it, and interest in it, fades over time—as enthusiasm wains, other tasks emerge, and staff move on. The LA's felt this was challenging, partly because the change process was part of a funded project. This means that either new staff were employed to service the e project or were allocated to it on a temporary basis. Where the change team is composed of such staff, it does not have the level of permeance and authority needed to effect change after the lifetime of the project, unless impact has been created and senior management understand the need for their organisation to continually evolve and adapt. Thus, it is highly recommended to foster permanent changes, for example through new organisational structures or guidelines that are widely known and utilised.

During the lifetime of the project, the cities achieved notable results in increasing of their capacity, and thus, became learning organisations which are more flexible and resilient [28]. A learning organisation is ideally a system that is constantly in motion. Events are taken as suggestions and used for development processes in order to adapt the knowledge base and scope for action to the new requirements. This is based on an open and individualised organisation that allows and supports innovative problem solving. Each LA was able to demonstrate such mechanisms that support learning processes. Examples listed below within the categories: organisational structure shift,

 Table 6.2 Example of structuring activities along identified challenges

Challenge	Target	Key Performance indicator	Impact example
Citizen participation	(a) Improve safety levels for citizens through	E.G. % of roads with no congestion; Fewer Injuries and/or fatalities per unit of transportation	Activity: Municipality 's participation in European Mobility Week activities
	increase of road's level service, and installation of posts near pavement to prevent illegal parking and improve safety levels		Responsible department: Culture/Education department
	(b) Increase awareness of citizens about sustainable mobility measures, such as infrastructure measures, new footpaths, bicycle lanes etc	E.g. Rate of citizen's participation (low—medium- high) in European Mobility Week	Target groups: Citizens, children, bicycle riders
			Level of replicability: High (this activity can be repeated easily)
			Potential obstacles: Lack of Political interest, weather, absence of campaign and marketing
	(c) Awareness and acceptance by citizens for sustainable mobility measures, high usage and acceptance for innovative technologies using renewable energy (solar power)	New smart pedestrian crossings at problematic points, especially near schools; E.G. number of citizens who use innovative technologies for urban mobility (smart pedestrian crossings)	Implementation requirements: Adequate advertising and campaign, infrastructure, good preparation
	(d) Increase quality of life for citizens	New green corridors (footpaths, bicycle routes, usage of innovative technology—online platforms)—number of citizens using them and average travel time reduction	Final outcome and impact: Increased awareness for urban sustainability

design and implementation of new guidelines and new ways of working to foster knowledge sharing. Examples at this stage included:

Changes to organisational structures

- The city of Valencia changed their organisational structure from a siloorganisation to a cross-functional project-based organisation which allows for more flexibility and innovative thinking and which prepares the ground for further organisational change. A silo-organisation is once in teams work in relative isolation from the rest of the organization, whereas a cross-functional project organisation is an organisational structure that is built by teams. In such teams, individuals, sometimes from different departments, work together on a project basis towards a common goal. This new organisational structure can be seen as the basis for a learning organisation.
- The city of Rome founded a new unit that is responsible to ensure that citizen's requirements are constantly identified and reflected in their long-term planning of sustainable targets (economic, social and environment). This new unit applies tools of behavioural economics, a new branch of economics (effects on organisational process). This unit demonstrates the local authority's openness to reflect their mental models, to become more innovative and flexible and citizens' focussed. The permanent implementation of such a unit also demonstrates that the city of Rome understood the relevance of a permanent change to become a learning organisation.

Design and implementation of new guidelines

The City of Alba Iulia worked with the procurement department to trial innovative procurement practises for the purchase of new buses. Initially, the procurement department was reluctant to adopt new working practises and applied the lowest price criterion in tendering. The lack of willingness to engage intensively with the comprehensive guideline on innovative procurement produced by SUITS was a big hurdle to overcome. In a number of internal meetings, the change manager worked out the principles of the guideline, showed the benefits and proposed concrete recommendations for action, and thus was able to get support from procurement team. This change became embedded when it led to successful tenders.

New ways to share knowledge

Transport for West Midlands (part of WMCA¹) attempted to improve institutional cooperation and sustainable thinking within the authority by organizing in-house workshops with external trainers, together with internal workshops in which staff are encouraged to jointly develop concrete strategies and activities focusing on sustainable mobility. In addition, periodic newsletters were created and sent to employees to increase transparency on projects, team activities, challenges and experiences and open for discussion. In this way, WMCA tried to integrate change as a fundamental

¹ West Midlands Combined Authority, UK.

principle in their organisation. WMCA showed that it wants to learn from within and cultivate the culture of "learning and pleading", discussions about mental models tend to sound like this: "This is my opinion, and that's how I got there. What do you think of it?" Instead of fighting for the right point of view, the path on which facts and data assumptions and opinions are based is made transparent and openly discussed.

All of these institutional-based changes make the shift in the organisational behaviour of a local authority sticky and thus pave the way for more flexible and innovative thinking in local authorities and to become a learning organisation.

Make change stick—step 8

While structural and procedural changes are mandatory to allow a LA to be turned into a learning organisation, for change to be successful and sustainable it is crucial that the need to change become anchored in the corporate culture. If the need for change becomes a fundamental principle in an organisation, this organisation can be characterised as a learning organisation with high levels of organisational capacity. A learning organisation is defined by five principles [28].

- 1. Personal mastery. The constant pursuit of personal growth (personal mastery), one's own visions and a better understanding of reality.
- 2. Mental models. The constant striving to become aware of one's own beliefs and ideas, to check them and to develop them further.
- 3. Shared vision. The constant further development of goals and visions that motivate and inspire at the same time.
- 4. Team learning. The development in the team begins with the dialogue and the acceptance of the others.
- 5. Systems thinking, as the fifth discipline which integrates the other four by recognizing the complex interrelationships of the whole.

Learning organisations are in a continuous learning process and have the ability to question themselves and their behavioural patterns and to develop further from the answers. Beside the structural and procedural requirements that are described in step 7, the LAs were also able to demonstrate first aspects that they really anchored change in their corporate culture. One indicator was the different cross-learning groups that were established between the local authorities to foster permanent knowledge exchange inside but also between the different LAs, academics and stakeholders. Each group consisted of two or three cities that with the support of the project team, shared experiences and knowledge in regular meetings and supported each other. This cooperation is expected to continue after the project. One of these cross-learning sets is described more closely in the following:

West Midlands Combined Authority, Coventry City Council and Coventry University started to exchange experiences with the City of Valencia. Key issues of interest are, e.g., the design of a "roadmap" with challenges and resources concerning

² A roadmap is a flexible planning technique to support strategic and long-range planning, by matching short-term and long-term goals with specific technology solutions. It is also expected that roadmapping techniques may help organisations to survive in turbulent environments and help them

sustainable mobility for the city, development and implementation of processes around the introduction of new ideas and marketing and designing of innovative solutions for close relationships with stakeholders. Through the exchange of experiences and knowledge, both local authority departments learn from each other and save time and costs when planning future mobility, e.g., recommendations that help to select a suitable software for the design of a roadmap or to identify a provider concerning the integration of a car-sharing system in the city.

6.5 Practical Guidance "Success Tips"

Five clear guiding principles were identified from the case studies which are key to successful organizational change in local authorities.

- Identify a key person—the change agent—who will be the driver for successful
 change in your local authority. A change agent should be knowledgeable,
 committed and well respected, with a clear route of communication through
 to senior management.
- 2. Embed diversity in the change team by bringing in people with different skills sets, ethnicities, genders and life experiences from across the organization.
- 3. Support the change agent from the top and bottom in your local authority.
- 4. Communicate your vision authority wide to make it effective and resilient to change.
- 5. Celebrate little successes to keep employees motivated to support the change over the long term.
- 6. Make change continual so that the organisation itself has the ability to be flexible and resilient, e.g. setting up a permanent team.

6.6 Conclusion

This chapter highlights the relevance of a transparent and structured way to implement organisational change for enhancing the capacity of a LA to plan and implement sustainable future mobility. Implementing organisational change is a challenging undertaking, as the investments made are relatively high and thus, many LAs are reluctant to make changes inside their organisation, especially as they have to meet the needs of the city at the same time.

However, the impact of global climate change (and more recently the COVID pandemic) requires actions at the local level, with local authorities assuming a central role in the critical examination and reorientation of mobility goals and strategies.

to plan in a more holistic way to include non-financial goals and drive towards a more sustainable development.

Implicit in the actions needed to develop and deliver SUMPs and Smart city initiatives is the need for LAs and transport departments to work in new ways (e.g., with new data, concepts, partners, information and technologies), in a cross departmental/multidisciplinary way, taking care to ensure full and meaningful engagement with all citizens in any planning processes. The rate of technological innovation, citizen awareness, global challenges and socio demographic changes means that transport (and other departments across the LA) must be knowledgeable and agile if they are to deliver the best services for their city.

However, little consideration has been given to how very traditional, small departments can increase their capacity and become more resilient. Based on comprehensive data from working with seven local authorities in Europe over four years, we can show a clear, structured process that will support local authorities in Europe managing organisational change and allow their organisational capacity to grow. We close this chapter with the words from one of the change agents:

Through SUITS, Kalamaria, as an organization, with the new administration, is ready to schedule and implement other sustainable mobility measures in the near future. [Change agent, City of Kalamaria].

References

- Akgün, E.Z., Monios, J., Rye, T., Fonzone, A.: Influences on urban freight transport policy choice by LAs. Transp. Policy 75, 88–98 (2019)
- Nikolaeva, A., Adey, P., Cresswell, T., Lee, J.Y., Nóvoa, A., Temenos, C.: Commoning mobility: towards a new politics of mobility transitions. Trans. Inst. Br. Geogr. 44(2), 346–360 (2019)
- Nienaber, A., Spundflasch, S., Soares, A.:Sustainable Urban Mobility in Europe: Implementation needs behavioural change. SUITS Policy brief X. SUITS funded from the European Union's Horizon 2020 research and innovation programme under grant agreement no 690650. Mobility and Transport Research Centre, Coventry University (2019)
- 4. Nienaber, A., Spundflasch, S., Soares, A., Woodcook, A.: Distrust as hazard for future sustainable mobility planning. Rethinking employees' vulnerability when introducing new technologies in local authorities. Human Computer Interaction (forthcoming)
- 5. Cherns, A.B.: The principles of sociotechnical design. Hum. Relat. 29, 783–792 (1976)
- 6. Cherns, A.B.: Principles of sociotechnical design revisited. Human Relat. 40, 153–162 (1987)
- 7. Clegg, C.W.: Sociotechnical principles for system design. Appl. Ergon. 31, 463–477 (2000)
- 8. Kotter, J.: Leading Change. Harvard Business School Press, Boston (1996)
- Pollack, J., Pollack, R.: Using Kotter's Eight Stage Process to manage an organisational change program: presentation and practice. Syst. Pract. Action Res. (2015)
- Applebaum, S., Habashy, S., Malo, J., Shafiq, H.: Back to the future: revisiting Kotter's 1996 change model. J. Manag. Dev. 31, 764–782 (2012)
- Lamé, G., Jouini, Q., Stal-Le Cardinal, J.: Combining the viable system model and Kotter's 8 steps for multidepartment integration in hospitals. In: 12ème Conférence Internationale de Génie Industriel, May 2017. Compiègne, France (2017)
- 12. Chowthi-Williams, A., Curzio, J., Lerman, S.: Evaluation of how a curriculum change in nurse education was managed through the application of a business change management model: a qualitative case study. Nurse Educ. Today **36**, 133–138 (2016)
- Springer, P., Clark, C., Strohfus, P., Belcheir, M.: Using transformational change to improve organizational culture and climate in a school of nursing. J. Nurs. Educ. 51, 81–88 (2012)

14. Lintukangas, K., Peltola, S., Virolainen, V.: Some issues of supply management integration. J. Purch. Supply Manag. **15**, 240–248 (2009)

- Day, M., Atkinson, D.: Large-scale Transitional procurement change in the aerospace industry.
 J. Purch. Supply Manag. 10, 257–268 (2004)
- Ansari, S., Bell, J.: Five easy pieces: a case study of cost management as organizational change.
 J. Account. Organ. Chang. 5, 139–167 (2009)
- 17. Joffe, M., Glynn, S.: Facilitating change and empowering employees. J. Chang. Manag. 2, 369–379 (2002)
- 18. Beer, M., Nohria, N.: Cracking the code of change. Harv. Bus. Rev. 78(3), 133–141 (2000)
- 19. Shah, N., Irani, Z., Sharif, A.M.: Big data in an HR context: exploring organizational change readiness, employee attitudes and behaviors, J. Bus. Res. **70**, 366–378 (2016)
- 20. Hoover, E., Harder, M.K.: Review: what lies beneath the surface? The hidden complexities of organisational change for sustainability in higher education. J. Clean. Prod. **106**, 175–188 (2015)
- 21. Choi, M.: Employees' attitudes toward organizational change: a literature review. Hum. Resour. Manage. **50**(4), 479–500 (2011)
- 22. Baxter, G., Sommerville, I.: Socio-technical systems: from design methods to systems engineering. Interact. Comput. **23**(1), 4–17 (2011)
- 23. Pasmore, W., Winby, S., Mohrman, S.A., Vanasse, R.: Reflections: sociotechnical systems design and organization change. J. Chang. Manag. 19(2), 67–85 (2019)
- 24. Yin, R.: Case Study Research: Design and Methods, 5th edn. Sage, Thousand Oaks, CA (2014)
- 25. Kotter, J.P., Cohen, D.S.: Creative ways to empower action to change the organization: cases in point. J. Organ. Excell. **22**(1), 73–82 (2002)
- Patton, M.Q.: Qualitative Research and Evaluation Methods, 3rd edn. Sage, Thousand Oaks, CA (2002)
- 27. Nienaber, A.M., Romeike, P.D., Searle, R., Schewe, G.: A qualitative meta-analysis of trust in supervisor-subordinate relationships. J. Manag. Psychol. 30, 507–534 (2015)
- 28. Senge, P.: The Fifth Discipline: The Art and Practice of the Learning Organization, 2nd edn. Random House Business (2006)