

SUITS Conference, 21 November 2018 Stimulating transport innovation through capacity building in small and medium

local authorities





Towards reshaping future Public Transport by implementing and creating innovations

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- Smartmove (2014 2016)
- PE4Trans (2018 2023)

PUBLIC TRANSPORT under drastic Reshaping?

Selected forthcoming Transport concepts

CONCEPT

- Autonomous transport systems
- Shared mobility, On-Demand, MaaS
- Low polluting energy in Transport Systems > Short Medium term
- Flying Taxis
- **Hyperloops**

Expected Implementation

- > Short Medium term
- > Short Medium term
- > Medium term
- > Medium Long term

MAIN DRIVING FORCES

Private Sector:

- Investing in brave new concepts
- Focus on market opportunities

Public Sector:

- Investing on testing new concepts
- Focus on societal needs

CIPTEC Rationale



Aim:

Fight congestion by increasing the share of Public Transport

How?

- by increasing the degree of satisfaction of existing PT passengers
- by attracting new passengers to PT

By which means?

- by identifying,
 promoting, creating
 innovations that could
 have a positive impact
 on PT share
- by providing a framework for leveraging those innovations



CIPTEC project has received funding by the Horizon 2020 research and innovation programme of the European Union (No 636412).



Market & Societal Trends influencing PT



Research method: Questionnaire survey, 153 fully completed quest., from 7 EU countries (April-May 2016), analysis with SPSS 23 statistics

Collective intelligence in CIPTEC

Two specific types of **collective intelligence (innovation)** were applied in CIPTEC project:

- 5 Crowdsourcing campaigns, one in English, accessible by anyone and four city-based, available in national languages.
 - 486 ideas submitted (in total)
 - 2329 votes / 126 comments received (in total)
- 8 Co-creation workshops (Frankfurt, Rotterdam, Thessaloniki, Southern Tuscany) aiming at stimulating the co-development of innovative concepts (services & products) in PT.
 - a total of 165 ideas came up. Organizers concluded on 17 cocreated PT -concepts.
 - total No of participants: 209

Collective intelligence in CIPTEC

Remarks on crowdsourcing (<u>www.crowdsourcing.ciptec.eu</u>)

- If an organisation wants to conduct a crowdsourcing campaign, it should firstly define its scope and then pose the question to be addressed.
- It is less possible for end-users to participate in campaigns of general purpose, if they feel that their contribution will not be taken into account.
- Both offline and online dissemination activities are required.
- More difficult for some certain population groups (not familiar with Internet) to be part of digital initiatives > Special events for supporting them technically.
- → Crowdsourcing makes citizens active contributors of the decision making and planning.

Collective intelligence in CIPTEC

Remarks on Co-creation (participatory workshops)







- Heterogeneity of participants' mixture should be ensured.
- Ideas proposed were both technology & management/marketing related.
- Although some co-created concepts were locally referenced, they may be transferred to other areas having similar characteristics & problems.
- → Co-creation of ideas could enable their acceptance & market uptake.
- → The integration of co-creation into the design & development of products/services, in a methodologically structured way, can help interested stakeholders to avoid unsuitable choices & support them to make better decisions towards meeting users' requirements and needs.

Marketing research methods in CIPTEC

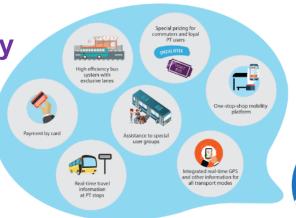
CIPTEC has employed advanced marketing research methods and tools aiming to:

- 1.investigate users' **preferences** regarding Public Transport innovations
- 2.reveal **hidden groups** who have certain common characteristics and preferences concerning innovation mixes
- 3.estimate potential **mode choice change** by running a simulation for introducing (innovative) solutions

Marketing research methods in CIPTEC

Traditional 'groups-driven' way

- 1. Definition of users' groups
- 2. Determination of needs
- 3. Solutions to cover these needs







- 1.Analysis of **preferences** (needs)2.Identification of **hidden groups**
- based on shared, common preferences
- **3.Solutions** to address the needs of the hidden groups



Marketing research methods in CIPTEC

Main conclusions

- Decision makers can be supported regarding the acceptability of innovations, in order to:
 - 1. customize their new offers (according to the preferences);
 - 2. avoid costs (e.g. providing something without demand), and
 - 3. improve the appeal of these new services (to all or to certain target groups).
- ✓ The introduction of combined sets of innovations has multiplier effects on modal share of PT, when these sets are relevant to the characteristics and the needs of the hidden groups.
- ✓ Introducing the "wrong" innovations could result in very small effects: innovations should be strategically selected in order to take advantage of the synergetic and multiplier effects.

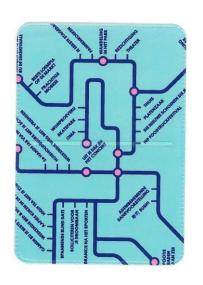
Nudging, in particular Social labeling

- <u>Problem</u>: How to encourage bus users to take the bus more often? (without changing prices)
- <u>Nudge</u>: "[an intervention] that alters people's behaviour in a predictable way without forbidding any options, or significantly changing their economic incentives.
- The social labelling technique was fine-tuned and tested in controlled laboratory conditions and next applied in field experimentation (case of Rotterdam).
 - a statement about an individual's identity, with the aim of getting from the individual, behaviour that is in line with that identity
 - e.g., "taking the bus shows that you are an environmentally conscious citizen"
- Results suggest that social labelling increases actual PT use.

Nudging, in particular Social labeling

CONTROL LINE







0.89% larger on experimental than on standard lines

but since the cost is practically zero then even this very small effect has a good return on investment.

Involving Social Entrepreneurs in PT

- Certain PT services that are needed, may have no great commercial interest for development, but they could increase user satisfaction or meet unmet demands.
 - Here the role of the so-called **social entrepreneurs** can be crucial.
- ✓ In CIPTEC, synergies among Public Transport and Social Entrepreneurs were explored, in the frame of a series of workshops.
- ✓ The finding is that there is a great potential for SE involvement and cooperation with PT stakeholders.

CIPTEC 'Public Transport Innovation' ToolBox

The CIPTEC toolbox for PT Innovation:

- ✓ aims in capturing the generated knowledge and provide advice on innovation introduction to PT stakeholders,
- ✓ is available in <u>3 versions</u>: full report, booklet report, online platform
- has two main parts:
 - 1. a methodological framework for PT innovation
 - 2. a repository/inventory of innovative concepts
- ✓ can be used by PT stakeholders to:
 - √ foster innovation culture of PT stakeholders
 - ✓ facilitate the identification & adoption of appropriate innovations
 - ✓ facilitate the creation and application of new innovations

CIPTEC 'Public Transport Innovation' ToolBox

Development of the "Toolbox for Public Transport Innovation"

Booklet Toolbox





http://toolbox.ciptec.eu

Potential long-term impacts of CIPTEC

- ✓ An opportunity for PT sector is to adopt a modern marketing perspective that promotes creativity and innovation with the aim of significantly increasing its modal share, by attracting new customers at limited extra cost.
- ✓ Utilising the CIPTEC crowdsourcing platform and co-creation workshops experience, could result in the production of new innovations.
- ✓ PT stakeholders will attract new users, also will meet future demands and trends by adopting appropriate mixes of innovations.
- ✓ Social Entrepreneurs should be integrated appropriately by PT stakeholders, contributing significantly to the innovation adoption.
- ✓ Ideas and innovations resulted from CIPTEC collective intelligence: crowdsourcing platforms and co-creation workshops, will be utilised by the market or social entrepreneurs.

Other PT related projects

SmartMove/IEE (2014-2016)



Active mobility consultancy focusing on feeder systems to increase awareness and use of PT

Promoting the use of existing PT services (mainly for rural areas) through a personalised travel marketing approach accompanied by active measures aimed at citizens or particular target groups/stakeholders, e.g. interviews, focus groups, info days, personalised info-material, etc.

www.smartmove-project.eu

Other PT related projects

PE4Trans/INTERREG EUROPE (2018-2023)



Public Engagement for Sustainable Public Transport

Improving PT policies by **including citizens** to the process of design and implementation of sustainable transport strategies and plans with the view to change **peoples' mobility habits** and routines incorporating findings of behavioural sciences.

www.interregeurope.eu/pe4trans

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