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Testing of interventions using a simulation game

The case of the Act on Public Collective Transport

Michał Wolański, Ph. D. m.wolanski@michalwolanski.pl
Igor Widawski, i.widawski@pracowniagier.com

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Problem

- The new act on public collective transport addresses the problem of decline of bus transport in rural areas
- The Ministry of Infrastructure and Construction plans to replace the present system based on the freedom of economic activity with the obligation to conclude contracts between carriers and self-governments
- The new system is supported by a majority of stakeholders - with the exception of a strong lobby of small “minivan” operators, which promotes a competing project
- The success factor is an appropriate attitude of self-governments

Key questions

- Discussing foundations is not conducive to fine-tuning of details:
  - Does the project actually have a chance to solve the problem of decline?
  - Is it a threat to Polish entrepreneurs?
  - What if self-governments act differently to what has been planned?

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Why the game?

The model: realistic mapping of complex systems

The time vehicle: facilitates quick verification of outcomes of long-term processes

The research material: observation of actual behaviour and reactions of stakeholders

Safe Experiment: helps to avoid huge costs of bad regulation

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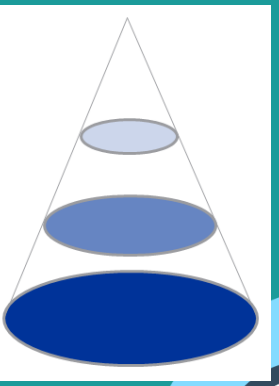
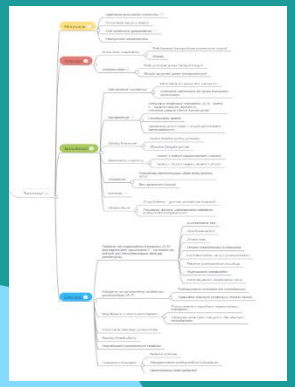
How was it created?





The analysis of the system

The game model

Prototype and tests

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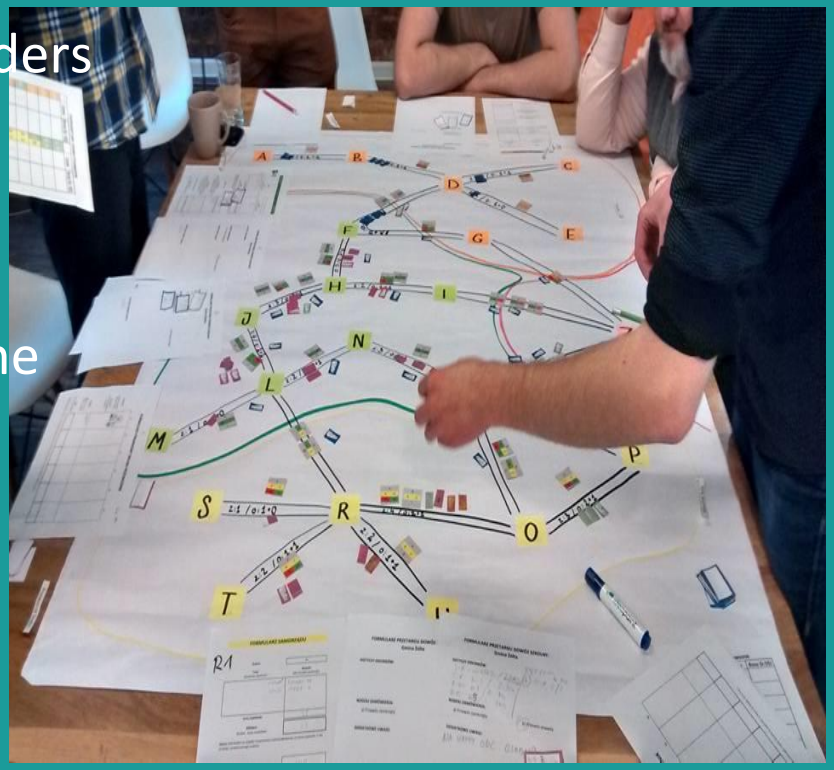
State of play:

- Testing the simulation with the stakeholders
- Duration: 5 – 6 hours
- Number of participants: minimum 7
- The analysis of conclusions after the game



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Substantive conclusions

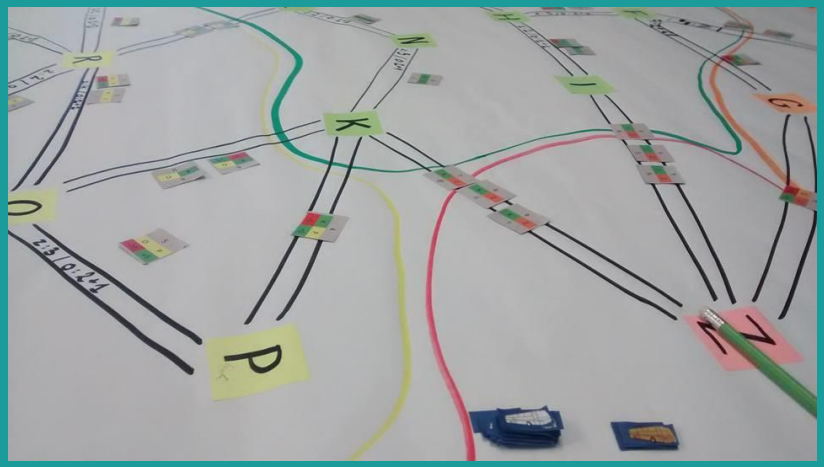
- The governmental draft is promising, but the simulation indicates that it carries certain risks, particularly in the initial period:
  - Not deciding all tenders - in the context of time constraints
  - Conclusion of flawed contracts or irregularities in enforcement of contractual provisions
- Despite concerns, small operators have a chance to survive, including as subcontractors, unless they are highly ineffective
- Recommendations:
  - More attention should be paid to transitional provisions, e.g. the present set up could be used as a fall back solution
  - The number of organisers should be limited - competence conflicts are emerging
  - Self-governments should be better motivated to take the function of the organiser - e.g. through technical support, additional subsidies

Methodological conclusions (1)

- Development of the game is accompanied by translation of the Act into the rules of the game, which is already the first test of the regulation - of its operability, cohesion and clarity
- The decision on which mechanisms shall be subject to modelling and which shall not is crucial - the game must focus on key questions, which the client must articulate
- The game very well facilitates the modelling of directions of interactions between different entities - e.g. self-governments and bidders in tenders
- The game is very useful in modelling of dynamic set-ups, including short- and long-term behaviours of markets (interactions of bidders in tenders)
- Implementation of the game needs good calibration - often one or two sessions shall not be enough - as well as selection and replacement of players

Methodological conclusions (2)

- Mapping of political mechanisms, including antagonisms, is a challenge - earlier acquaintances of players could be a problem
- “Putting on” players behaving irrationally could be an interesting solution, if such risk is present in reality and the game does not show it
- In the course of the game, proper interpretation of the context by experts - and not the game’s designers - is important, participants may have a lot of expert questions, unforeseen earlier
- The game may also have educational applications, in trainings for self-governments



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