



“Towards the Era of Operational Economy in Water Services”

5th UNECWAS Seminar “Resilience in Water Services”

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1. Analysing long-term development of water services and utilities projects 1992-2016 by CADWES



Inter- and multidisciplinary



TAMPERE UNIVERSITY

Porvoon vesi Bargi vatten

IGY

Yhteist
Tampereen Seuran Vesilaitos Käsitöiden

TUUKKUS

seutukunta asukas valtuustettu
ehyt maaseutu oppiva terve
Eurooppa tasa-arvoinen älykäs

Pekka Pietilä • Tapio Katko • Vuokko Kurki
**Vesi kuntayhteistyön
voiteluaineena**

muukalainen kaupunki hallinto
ehjä kansalainen ihmisen
yliepistö tarmokas kilpailukykyinen
kehitysalue koulu demokratia
kytä Suomi kunta vanhus
koulutus identiteetti talous koti
osallistuva kuntalainen maakunta
luova asiakas oppilas valtio

"Finnish Water Services – Experiences in Global Perspective": Findings

Potentially applicable worldwide

- (i) Adequate pricing
 - (ii) sound institutional arrangements
 - (iii) partners supporting each other
 - principles of good governance,
 - need for long-term thinking
 - proper management of systems
- > "civic discipline"

Exceptionally interesting?

- (i) Water and wastewater utilities integrated in urban areas
- (ii) A special wastewater fee act
- (iii) Government: seed money only
- (iv) Consumer-managed cooperatives in rural areas
- (v) Diversity of administrative and governance systems
- (vi) Continuous and dynamic development instead of ad hoc reforms

www.finnishwaterservices.fi



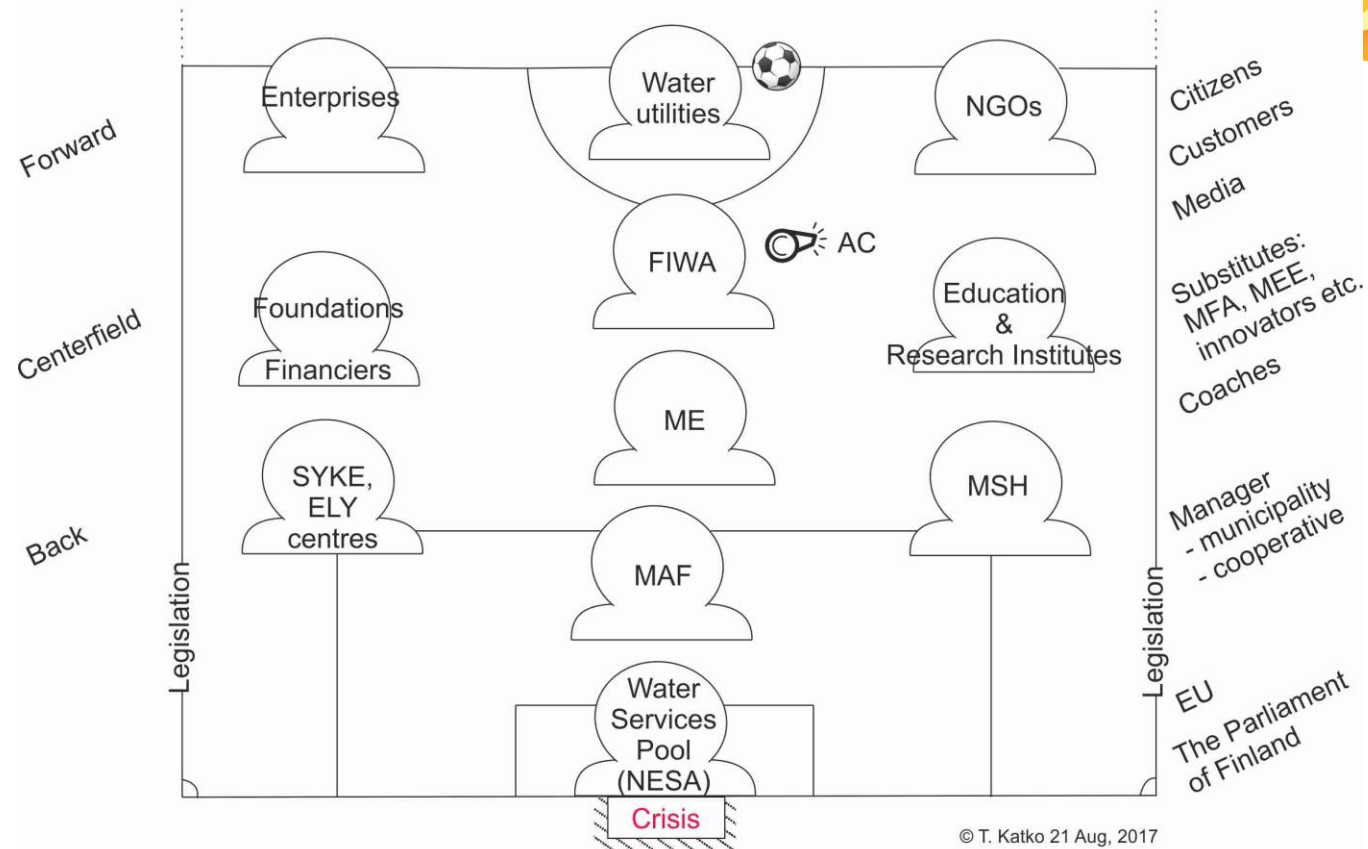
2. Estimated investment gaps in water services infrastructure in four OECD countries

Country	Population (millions)	State of water services infrastructure (scale high to low)	Estimated current funding gap (billions USD)	Estimated funding gap per population (USD/hd)
Canada	35.182	Good (Very good–very poor)	72.1	2,050
Finland	5.426	7 (10–4)	6.58	1,210
Norway	5.043	Water networks 3; sewers 2 (5–1)	18.12	3,590
USA	320.051	D (A–E)	556.8	1,740

3. From resiliency point of view?

- Appropriate size? e.g. Schumacher: “for different purposes man needs many different structures: small and large...people find it most difficult to keep two seemingly opposite necessities of truth in their mind...”
- RDI activities
- HRD
- adequate pricing
- stakeholder involvement/ inclusion
- Institutional development

D.C. North:
Institutions =
 formal &
 informal rules
Players =
 organisations



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CIVIC SOCIETY (informal rules of the game)

- AC Administrative Courts
- ELY Centre for Economic Development, Transport and the Environment
- FIWA Finnish Water Utilities Association
- MAF Ministry of Agriculture and Forestry
- ME Ministry of the Environment
- MEE Ministry of Employment and Economy
- MFA Ministry of Foreign Affairs
- MSH Ministry of Social Affairs on Health
- NESA National Emergency Supply Agency
- SYKE Finnish Environment Institute



4. Conclusions

- Aging infrastructure the biggest future challenge of water services worldwide
- We need long-term thinking: pasts, presents and futures for more resilient futures
- Resiliency needs to be seen in wider institutional framework
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- Thanks very much!
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- www.finnishwaterservices.fi available now also in e-form
 - www.cadwes.com

