

Gender inequality in science

A system dynamics model

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Aim and relevance

Gender inequality is (re)created on multiple levels:

- Individual
- Organization
- Society

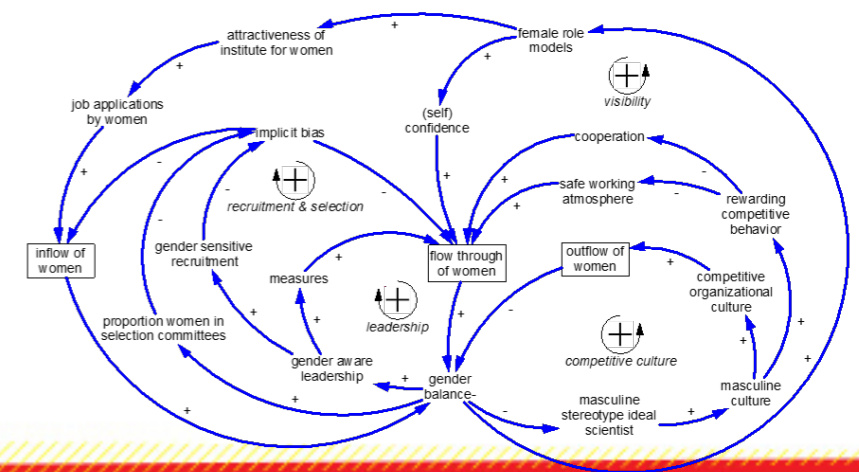
Interventions should be systemic and address multiple levels (Bilimoria & Liang, 2012)

Aim: support the understanding of the interconnection between individual, organizational and societal explanations for gender inequality, by providing a system dynamics model of gender inequality in science.

Practical relevance: dynamic processes in extreme case of Science, Technology, Engineering and Math (STEM) in the Netherlands may support leverages for change and be transferable to other cases.

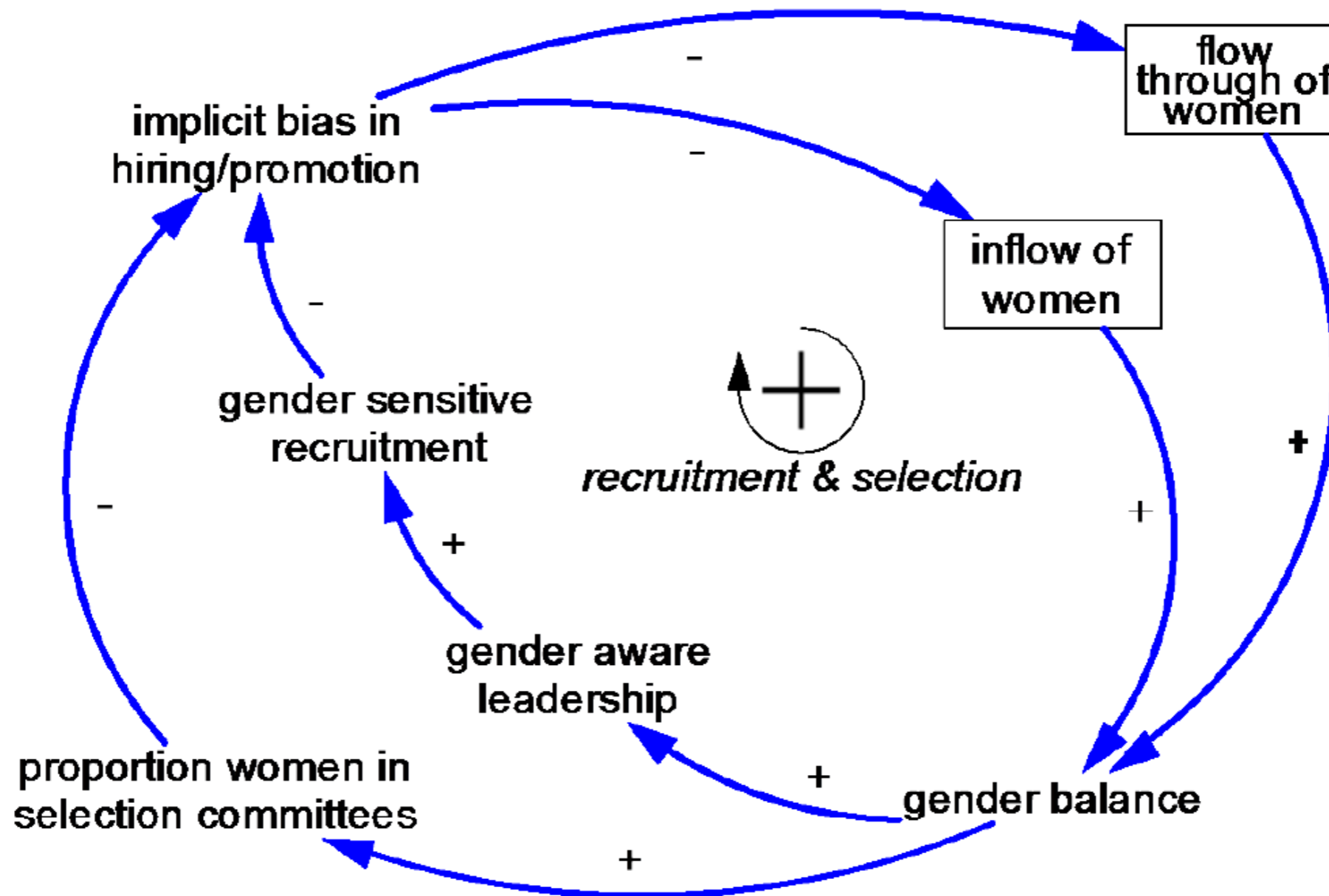
Method: group model building with stakeholders

	Participants			Research institute	Period
	Men	Women	Total		
1	6	4	10	Donders Institute	2012
2	5	6	11	Institute for Computing and Information Sciences	2014 - sept
3	6	7	13	Institute for Mathematics, Astrophysics and High Energy Physics	2015 – febr-apr
4	6	6	12	Institute for Molecules and Materials	2015 - oct
5	6	7	13	Institute for Water and Wetland Research	2016 – feb-mar
6	10	7	17	Institute for Molecular Life Sciences	2016 – may-july
Total	39	37	76		



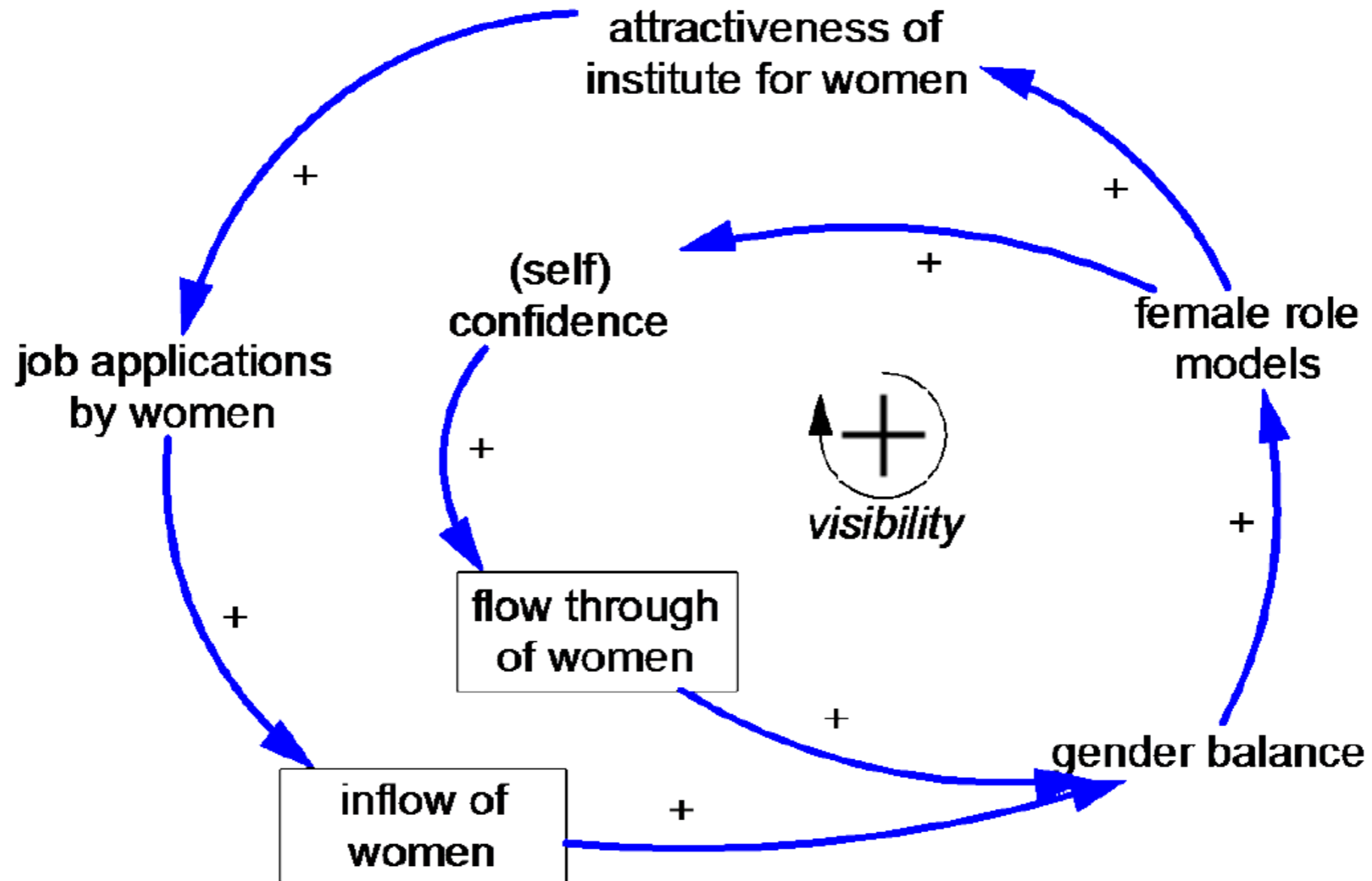
Results: feedback loops on recruitment and selection

(Van den Brink, 2009; Isidor et al., 2016)



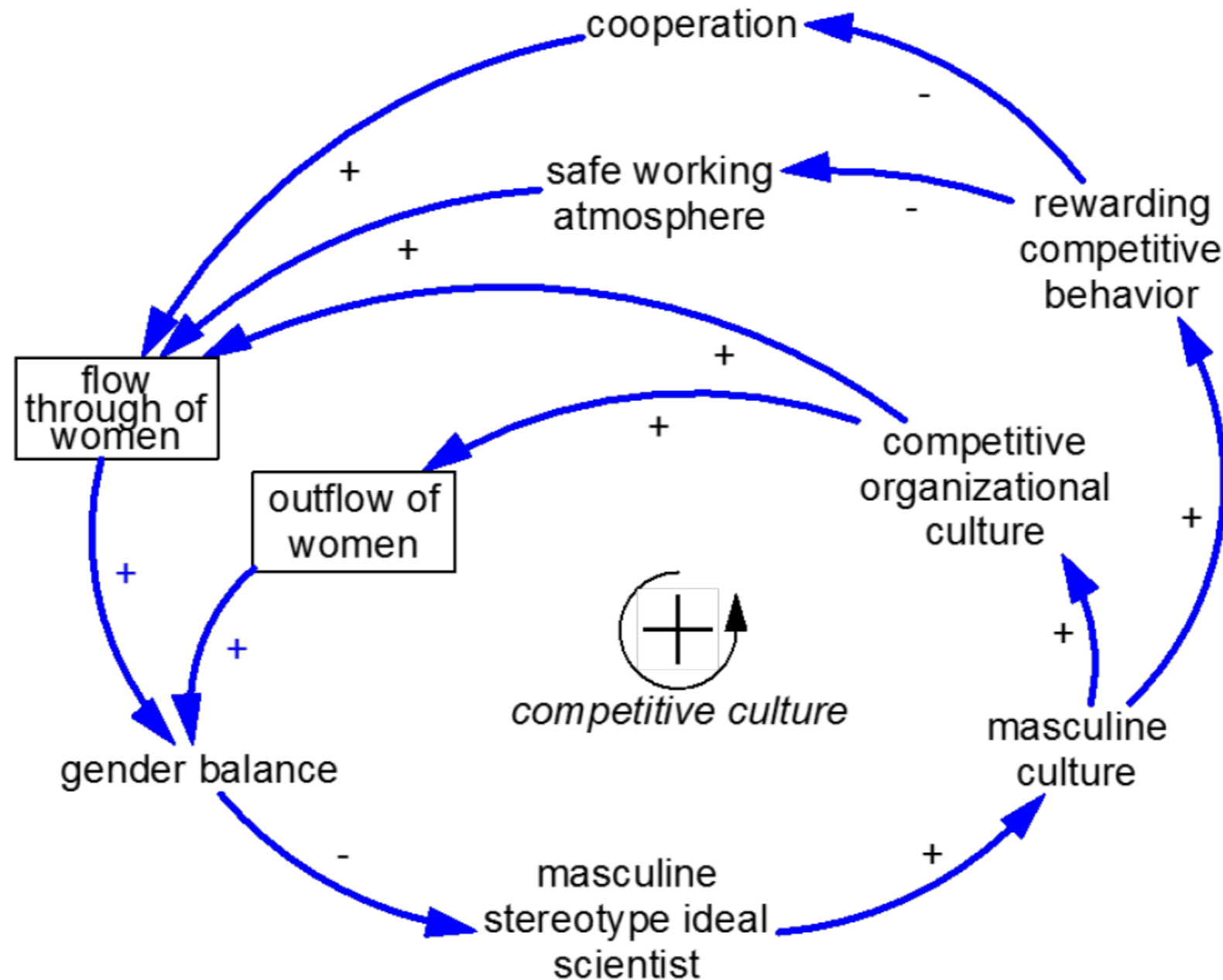
Results: feedback loops on self-confidence and role models

(Latu et al. , 2013, Carrel, page & West, 2009)



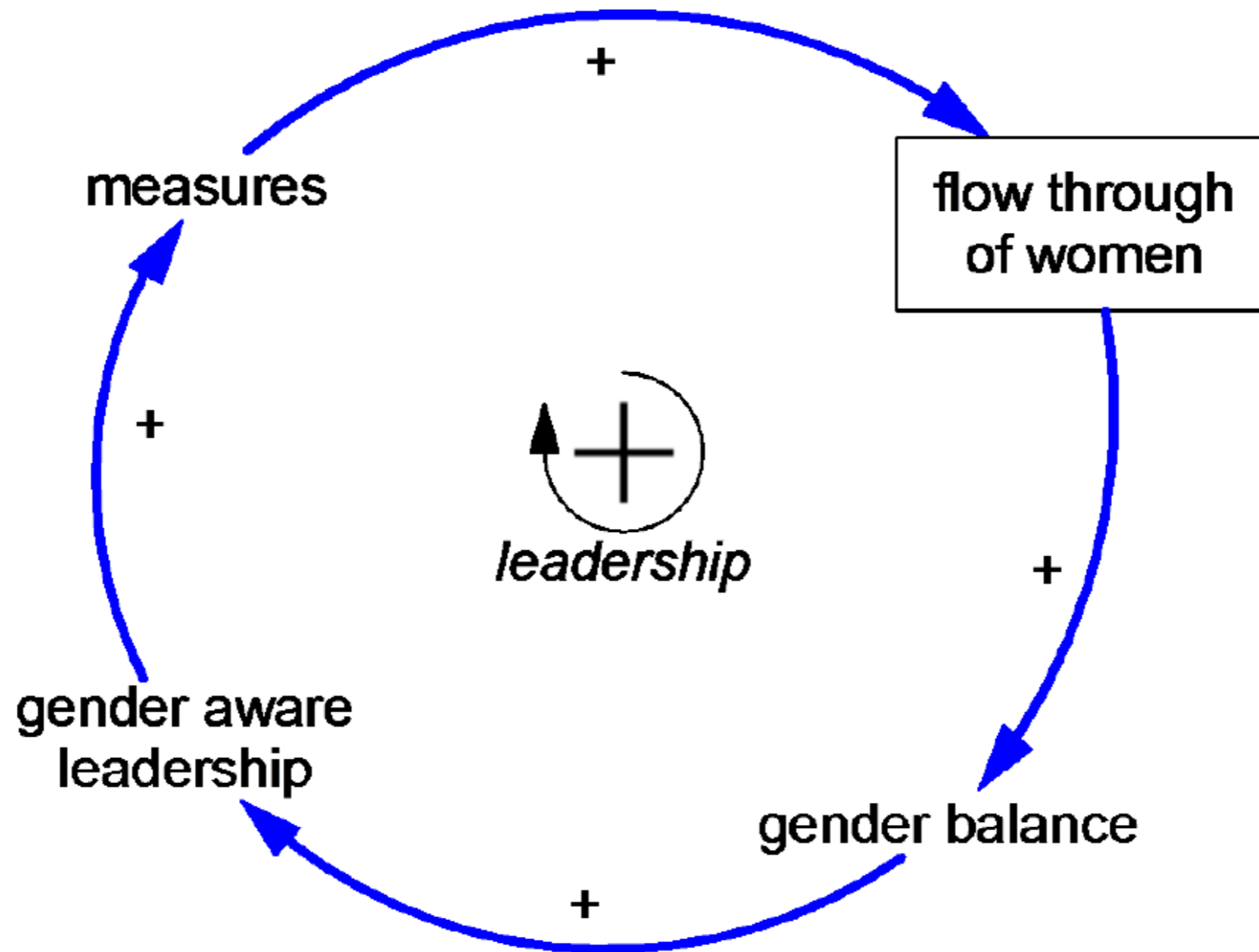
Results: feedback loops on organizational culture

(Van den Brink & Benschop, 2012; Bleijenbergh, Vinkenburg & van Engen, 2015; Benschop & Brouns (2004))



Results: feedback loop on leadership

(Moss-Racusin et al., 2014)



Implementation

Gender & diversity committee



Policies recommended and implemented

	Institutes	Policy
. Target figures for women in higher positions	X	X
. Increase gender aware leadership	X	X
. Increase the proportion of women in selection committees	X	X
. Gender sensitive recruitment and selection	X	X
. Mentoring	X	X
- Affirmative action program for female full professors	X	X