

# PRACTISE WHAT YOU PREACH: INNOVATION IMPLEMENTATION ON CAMPUSES OF DUTCH RESEARCH UNIVERSITIES

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1. OVERVIEW
2. LITERATURE REVIEW
3. RESEARCH RESULTS
4. CONCLUSIONS





# 1

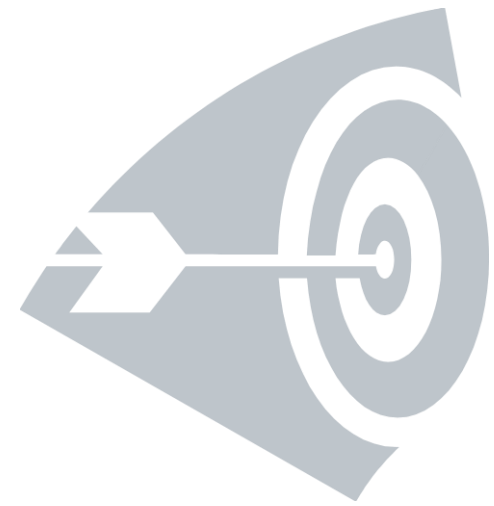
## OVERVIEW

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# RESEARCH PROPOSAL



## THE RESEARCH OBJECTIVE

To present the specific factors that impact on-campus innovation adoption originating inside the university based on the example of Dutch research universities.



## JUSTIFICATION

- The changing role of the university campus.
- The need to fulfil the third university mission i.e. engage in a wide range of social, entrepreneurial and innovation activities (apart from the traditional missions of teaching and conducting research).



## RESEARCH QUESTIONS

- What various university goals can be supported by the on-campus adoption of innovation arising inside the university?
- What are the internal barriers to on-campus innovation adoption delivered by own scientists based on the example of Dutch research universities?





# RESEARCH METHODOLOGY

## LITERATURE REVIEW

- Campus management
- Innovation theory (factor approach)

## METHODOLOGY

- Qualitative research using semi-structured interviews with 30 campus decision-makers (13 of 14 Dutch government-funded research universities). The Open University was excluded from the group as it uses distance education and operates in a mode that is very different from the others.





# 2

## LITERATURE REVIEW

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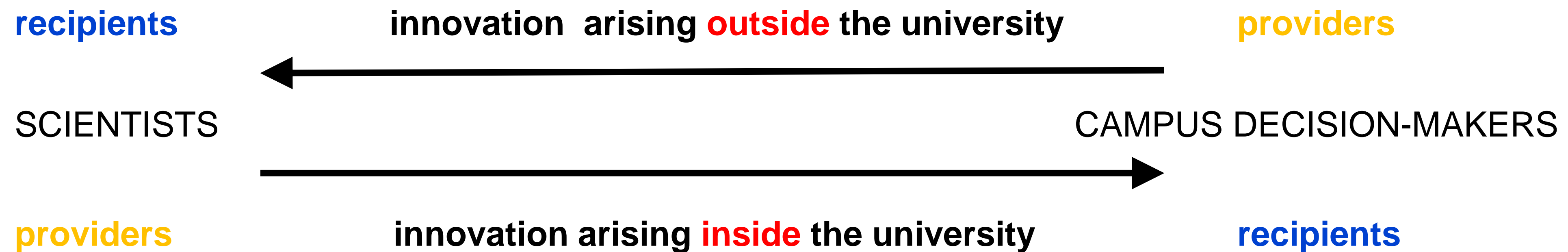


# CAMPUS INNOVATION

## CAMPUS INNOVATION

the introduction of novelty on campus (i.e. new products, services and/or technologies) that represents a particular form of change in real estate and facilities providing the setting for teaching and learning, research and associated activities (Birkinshaw, Hamel, & Mol, 2008; Rymarzak, den Heijer, Curvelo Magdaniel, & Arkesteijn; 2019).

## CAMPUS INNOVATION TYPES





# UNIVERSITY GOALS

## UNIVERSITY GOALS SUPPORTED BY CAMPUS INNOVATIONS arising **outside** the university (den Heijer, 2011):

- users' productivity and well-being (functional perspective)
- university competitive advantage (organizational perspective)
- profitability of university (financial perspective)
- sustainable development (physical perspective)





# INTERNAL BARRIERS

(innovations arising **outside** the university)

## 1. INDIVIDUALS-RELATED BARRIERS

- campus decision-makers' attitude/openness and knowledge about innovation
- innovation users' acceptance

## 2. ORGANIZATIONAL BARRIERS

- ineffective administration of process activities (top-down managerial thinking)
- rigid organizational structure
- lack of financial resources

## 3. INNOVATION CHARACTERISTICS-RELATED BARRIERS

- lack or low relative advantage
- complexity
- lack of compatibility
- lack of trialability
- insufficient observability





# 3

## RESEARCH RESULTS

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# RESEARCH RESULTS

## UNIVERSITY GOALS SUPPORTED BY CAMPUS INNOVATIONS originating **inside** university

- co-creation stimulation (functional perspective)
- collaborative partnership (organizational perspective)
- accountability and transparency of university (campus as an "exposition") (financial perspective)
- addressing grand challenges (for the benefits of society-at-large) (physical perspective)





# IMPLEMENTED INNOVATIONS

## EXAMPLES

- solar panels
- cycle paths (bio-asphalt/super asphalt)
- vegetarian meat alternative
- campus smart tools
- indoor navigation system
- leasing facade
- language change in elevator



PHOTO BY: K. MYSTKOWSKI, D. WERNER



# INTERNAL BARRIERS

(innovations arising **inside** the university)

## 1. INDIVIDUALS-RELATED BARRIERS → INTERACTION-RELATED

Differences	Scientists (innovation <b>providers</b> )	Campus decision-makers (innovation <b>recipients</b> )
Time orientation	long-term, curiosity-driven research	short- and medium-term outputs
Type of involvement	scientific-orientation (fundamental research)	campus and university performance-oriented (applied research)
Working practices	autonomy and research freedom based on personal interests (focusing mostly on one perspective)	limited freedom and integration of actions according to the university's strategy (integrating four perspectives)
Risk expectancy	high (superior technologies)	low (proven technologies)





# INTERNAL BARRIERS

(innovations arising **inside** the university)

## 2. ORGANIZATIONAL BARRIERS

- ineffective administration of process activities (lack of formalization, lack of intra-organizational coordination)
- unavailability of funds at the same time (asynchronicity)
- nature of universities (comprehensive, technical, specialized)

## 3. INNOVATION CHARACTERISTICS-RELATED BARRIERS

- lack of relative advantage
- insufficient complexity (not proven technology)
- lack of compatibility
- innovations-space availability mismatch
- lack of observability





# 4

## CONCLUSIONS

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# CONCLUSIONS – MAIN DIFFERENCES

	Innovation originating <b>outside</b> university <i>(based on literature review)</i>	Innovation originating <b>inside</b> university <i>(based on research results)</i>
Target	<ul style="list-style-type: none"> <li>innovative campus</li> </ul>	<ul style="list-style-type: none"> <li>innovative university (PRACTISE WHAT YOU PREACH)</li> </ul>
Goals supported	<ul style="list-style-type: none"> <li>users' productivity and well-being</li> <li>competitive advantage</li> <li>profitability</li> <li>sustainable development</li> </ul>	<ul style="list-style-type: none"> <li>co-creation stimulation</li> <li>collaborative partnership</li> <li>accountability and transparency</li> <li>addressing grand challenges</li> </ul>
Individuals-related barriers	<ul style="list-style-type: none"> <li>campus decision-makers' attitude</li> <li>innovation users' acceptance</li> </ul>	<ul style="list-style-type: none"> <li>interaction-related barriers (between scientists and campus decision-makers)</li> </ul>
Organizational barriers	<ul style="list-style-type: none"> <li>top-down managerial thinking</li> <li>lack of financial resources</li> </ul>	<ul style="list-style-type: none"> <li>lack of formalization</li> <li>lack of intra-organizational coordination</li> <li>unavailability of funds at one time</li> <li>nature of universities</li> </ul>
Innovation characteristics-related barriers	<ul style="list-style-type: none"> <li>complexity</li> <li>lack of trialability ('demand led')</li> </ul>	<ul style="list-style-type: none"> <li>insufficient complexity</li> <li>innovations-space availability mismatch ('supply pushed')</li> </ul>





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