

# Careers of PhD-holders & Nacaps a short overview.

Hannover, September 10th, 2019  
Kolja Briedis

# Design of the study



Total:  
28.147 new PhD-holders  
in Germany in 2014



1<sup>st</sup> wave

**19.900**

**5.408**

**27 %**



2<sup>nd</sup> wave

**4.816**

**3.183**

**66 %**



3<sup>rd</sup> wave

**4.806**

**2.924**

**61 %**



4<sup>th</sup> wave

**4.789**

**2.981**

**62 %**



5<sup>th</sup> wave

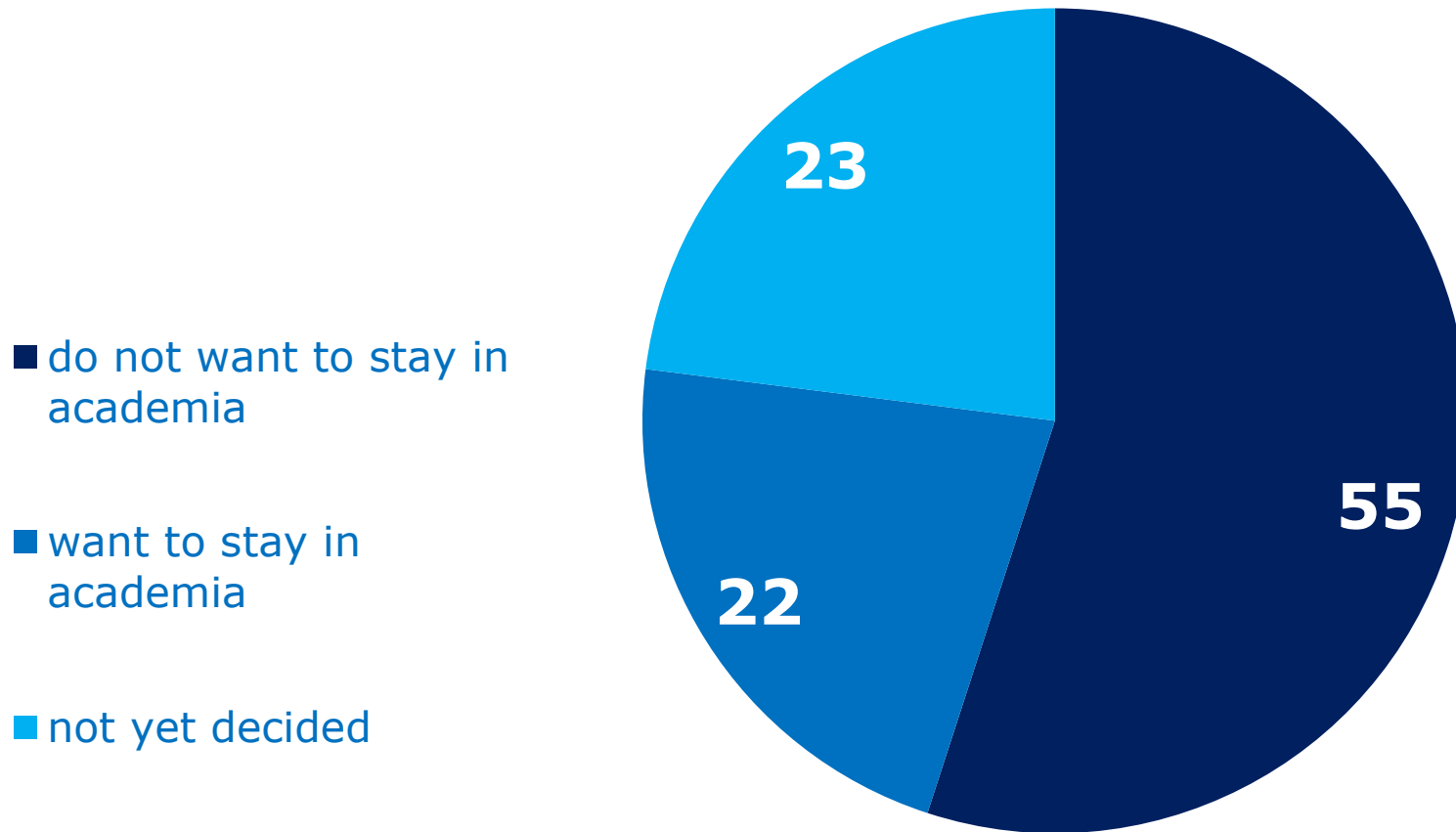
**4.778**

**3.037**

**64 %**

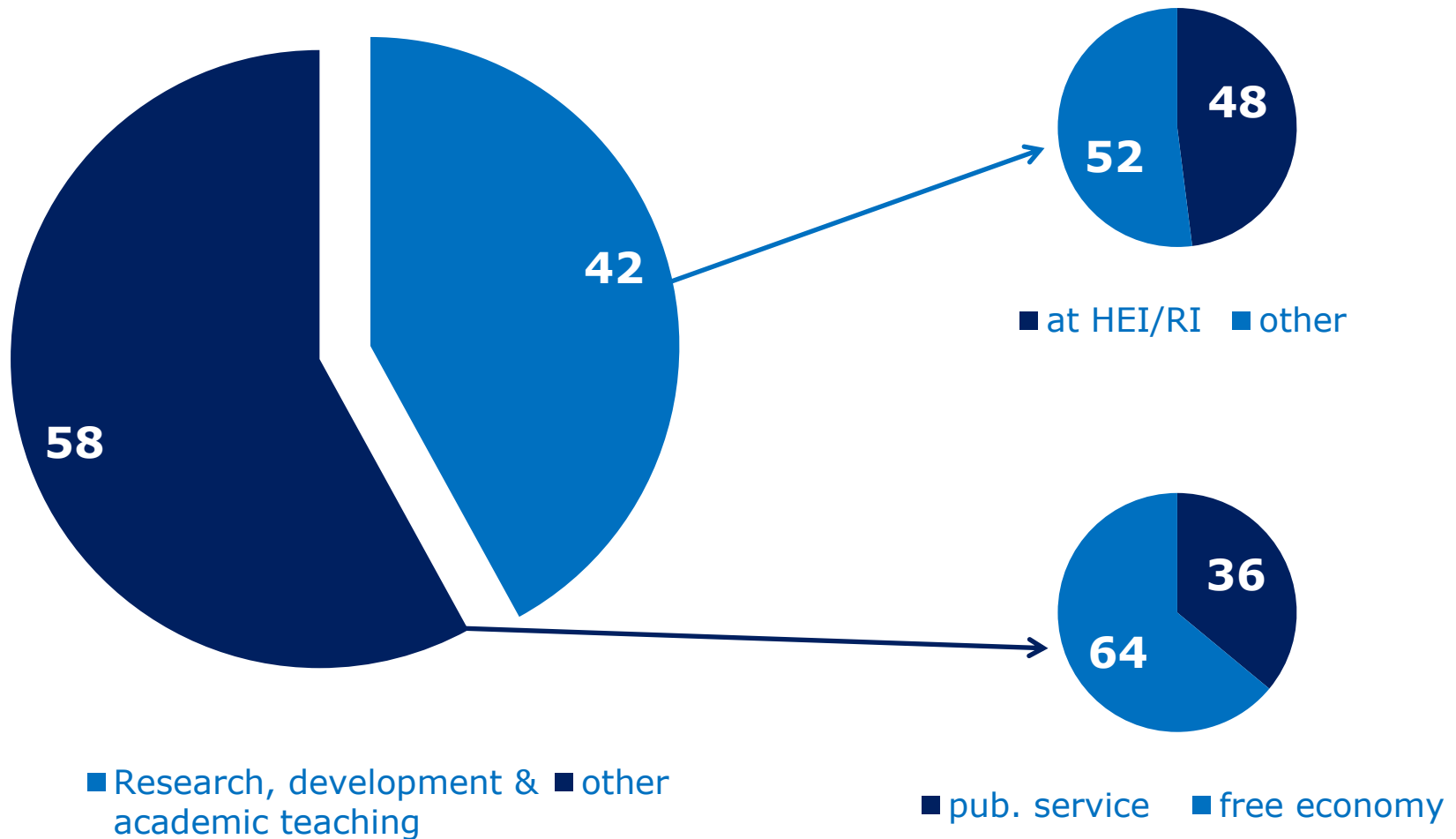
## Intentions one year after PhD (in %)

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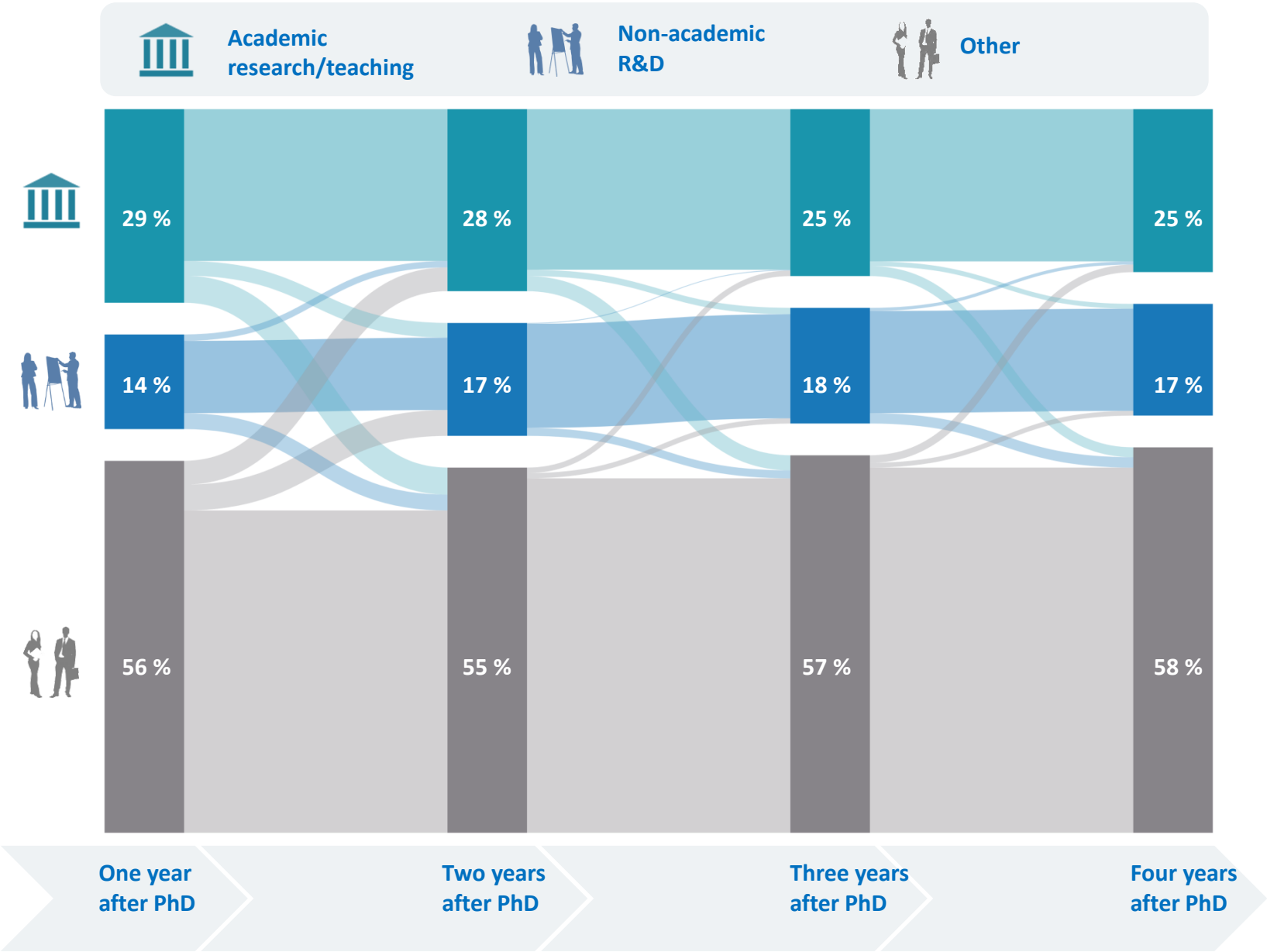
Source: PhD-holder survey 2015, 1<sup>st</sup> wave

## Situation three years after PhD (in %)



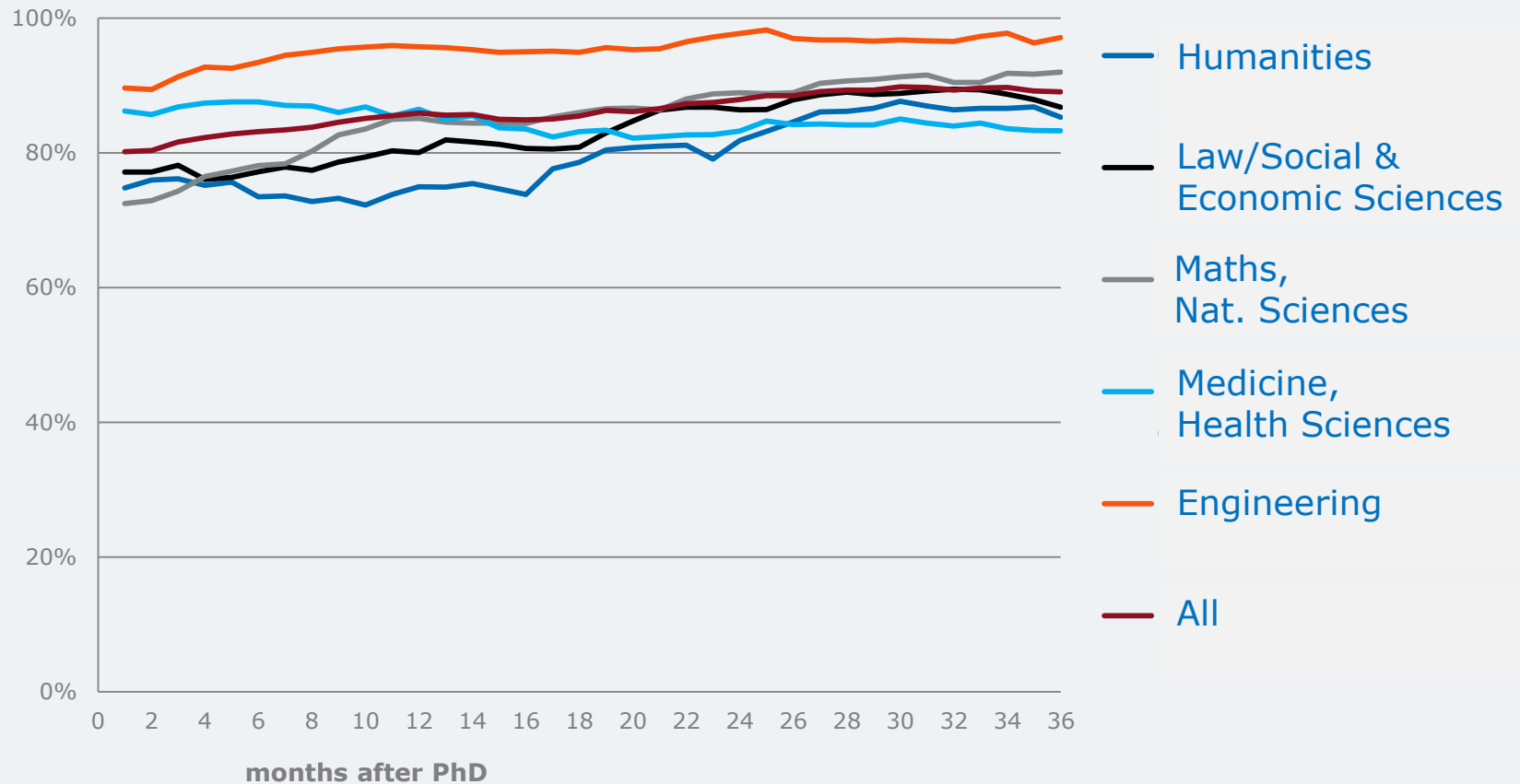
Source: PhD-holder survey 2017, 3<sup>rd</sup> wave

Changes between different sectors after PhD



# Transition after PhD

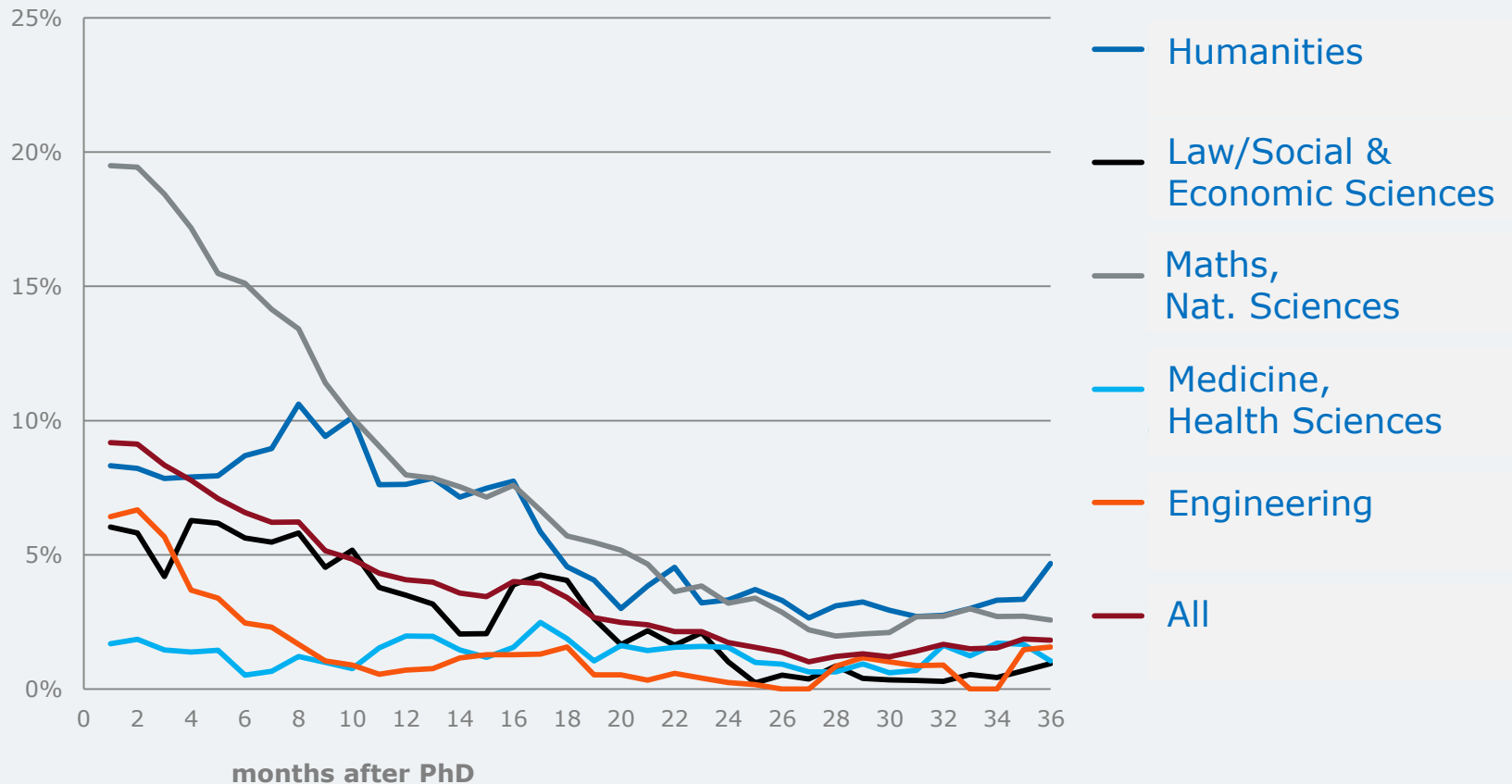
## Regular employment in the first 36 months after PhD



Source: PhD-holder survey 2017, 3<sup>rd</sup> wave

# Transition after PhD

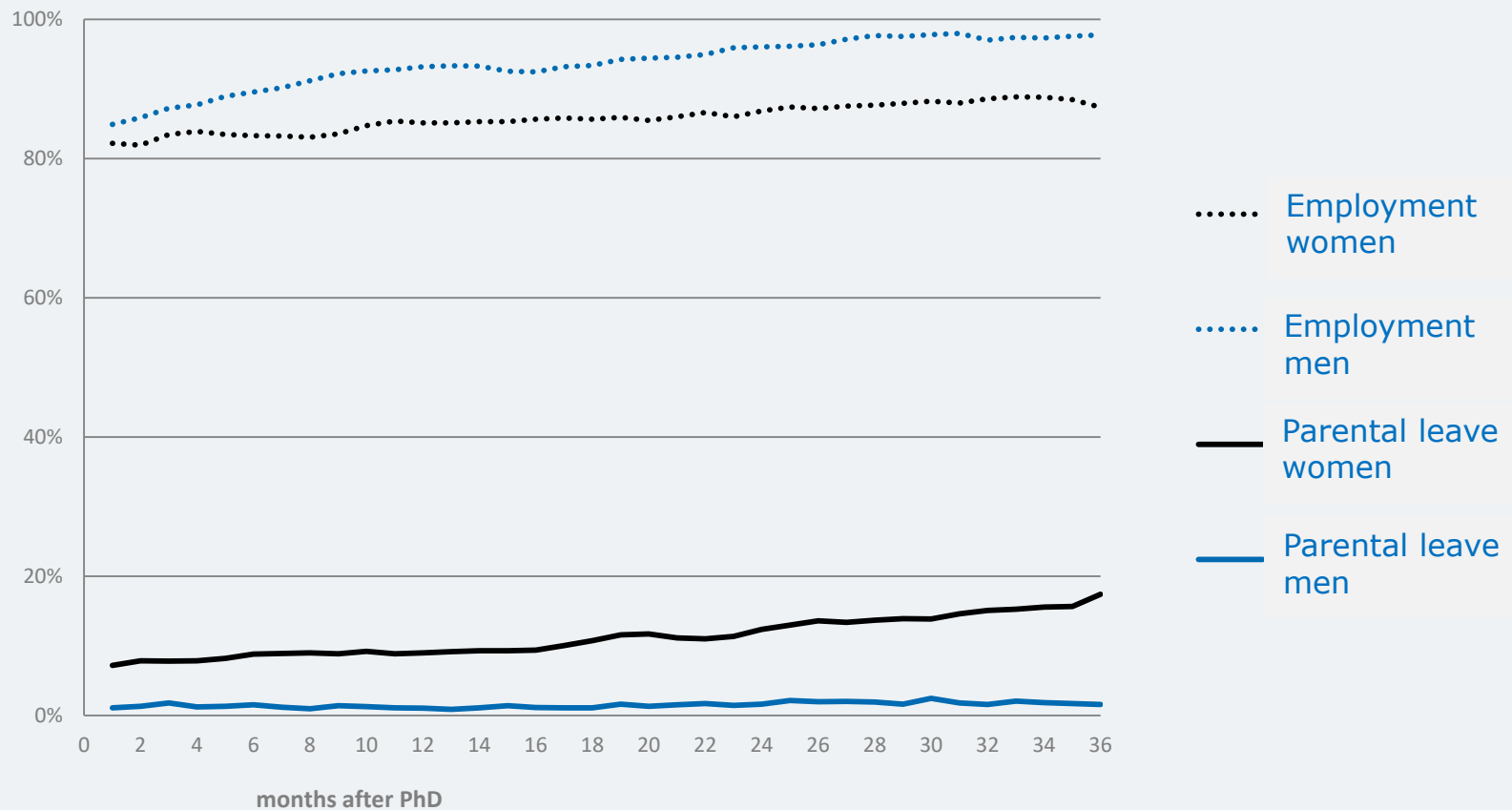
## Unemployment in the first 36 months after PhD



Source: PhD-holder survey 2017, 3<sup>rd</sup> wave

# Transition after PhD

## Parental leave & employment in the first 36 months after PhD

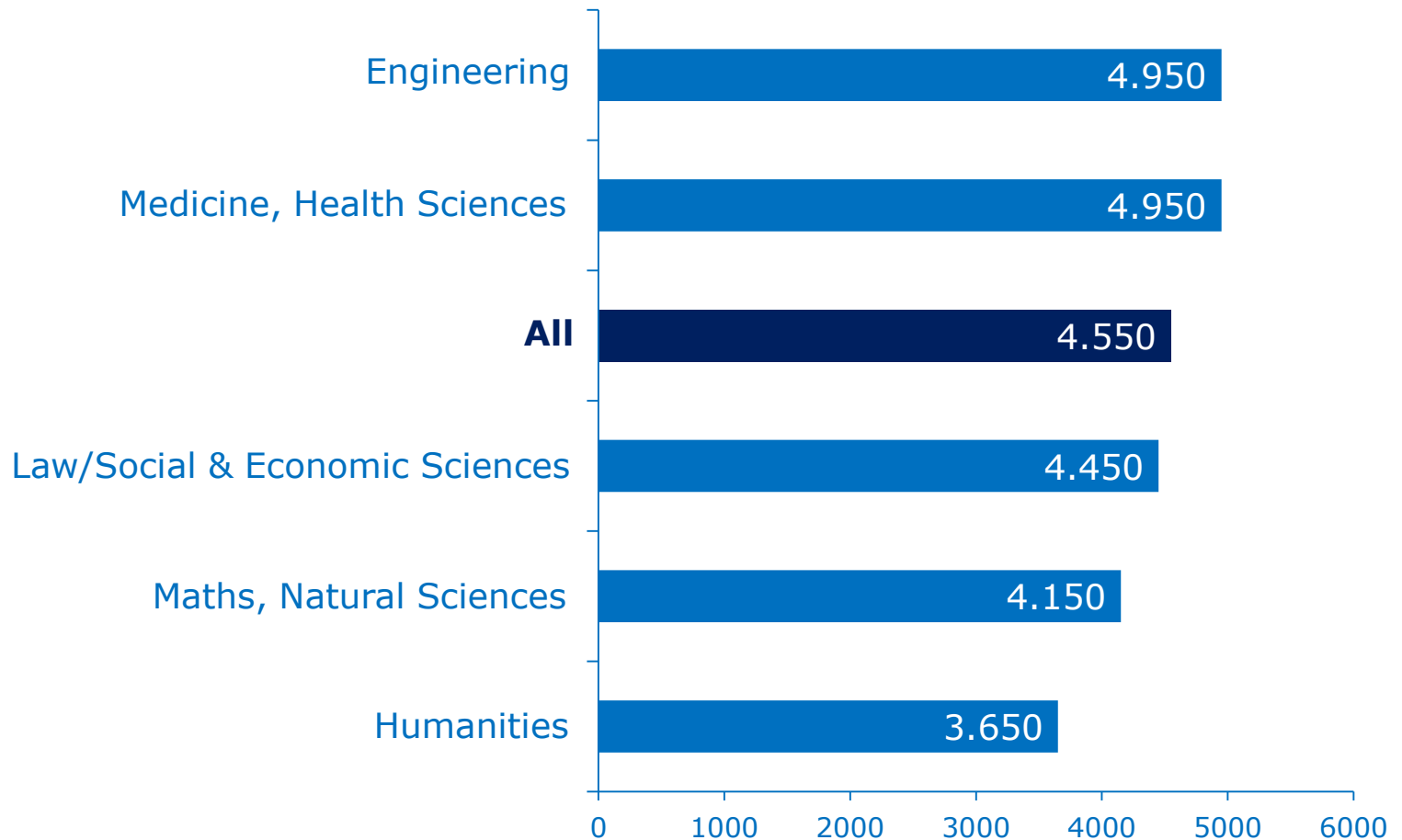


Source: PhD-holder survey 2017, 3<sup>rd</sup> wave



# Monthly gross-income one year after Phd (in €)

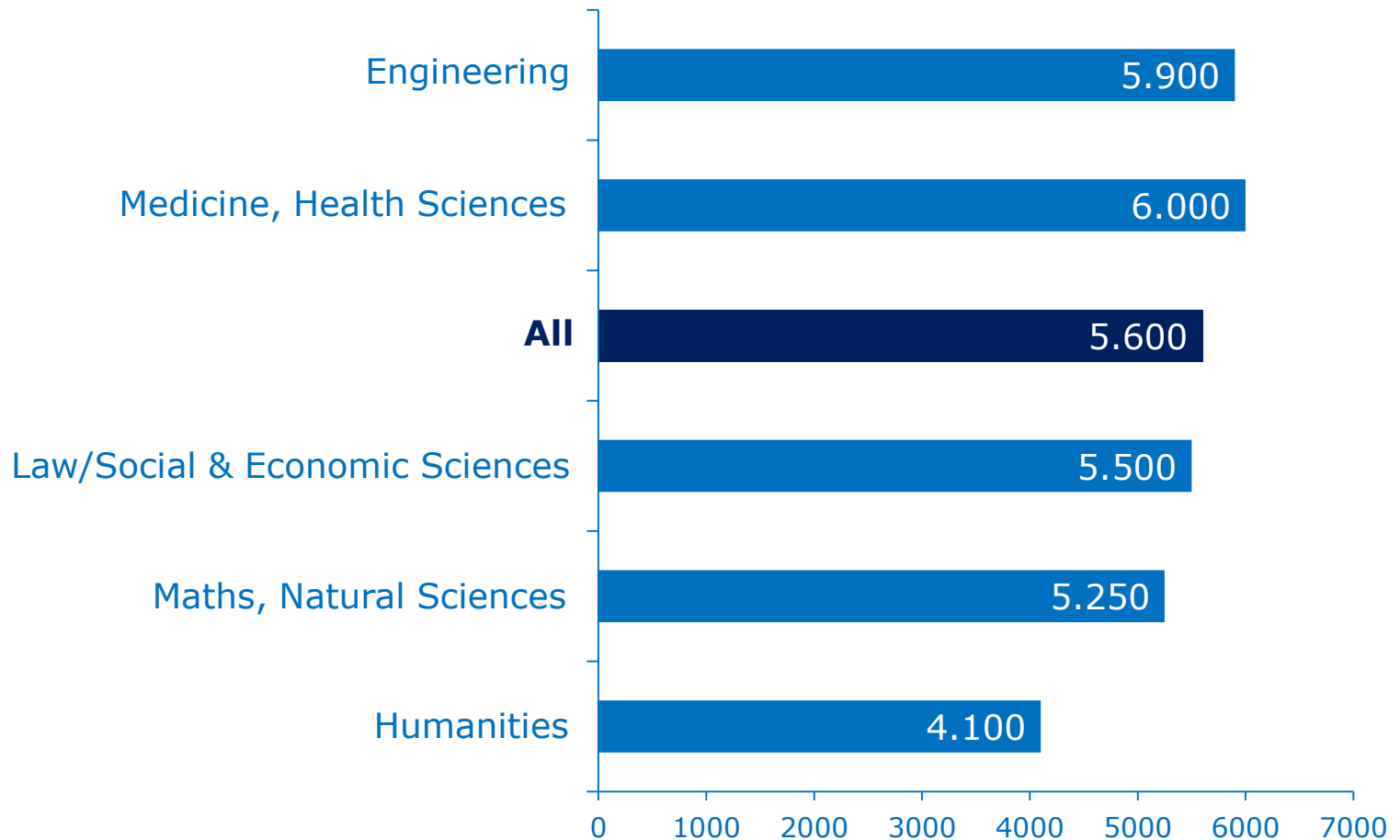
(only full-time employed persons, without extreme values (i.e. upper and lower 1%))



Source: PhD-holder survey 2015, 1<sup>st</sup> wave

# Monthly gross-income three years after Phd (in €)

(only full-time employed persons, without extreme values (i.e. upper and lower 1%))



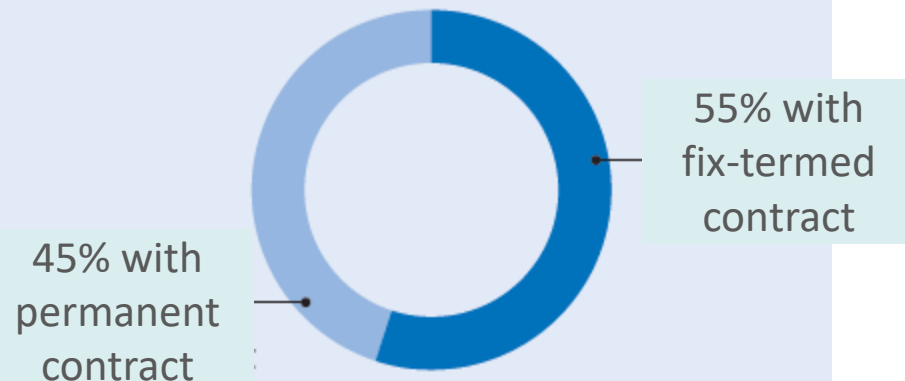
Source: PhD-holder survey 2017, 3<sup>rd</sup> wave

# Professional situation of employees in research, development or academic teaching

42 % are in research, development or academic teaching

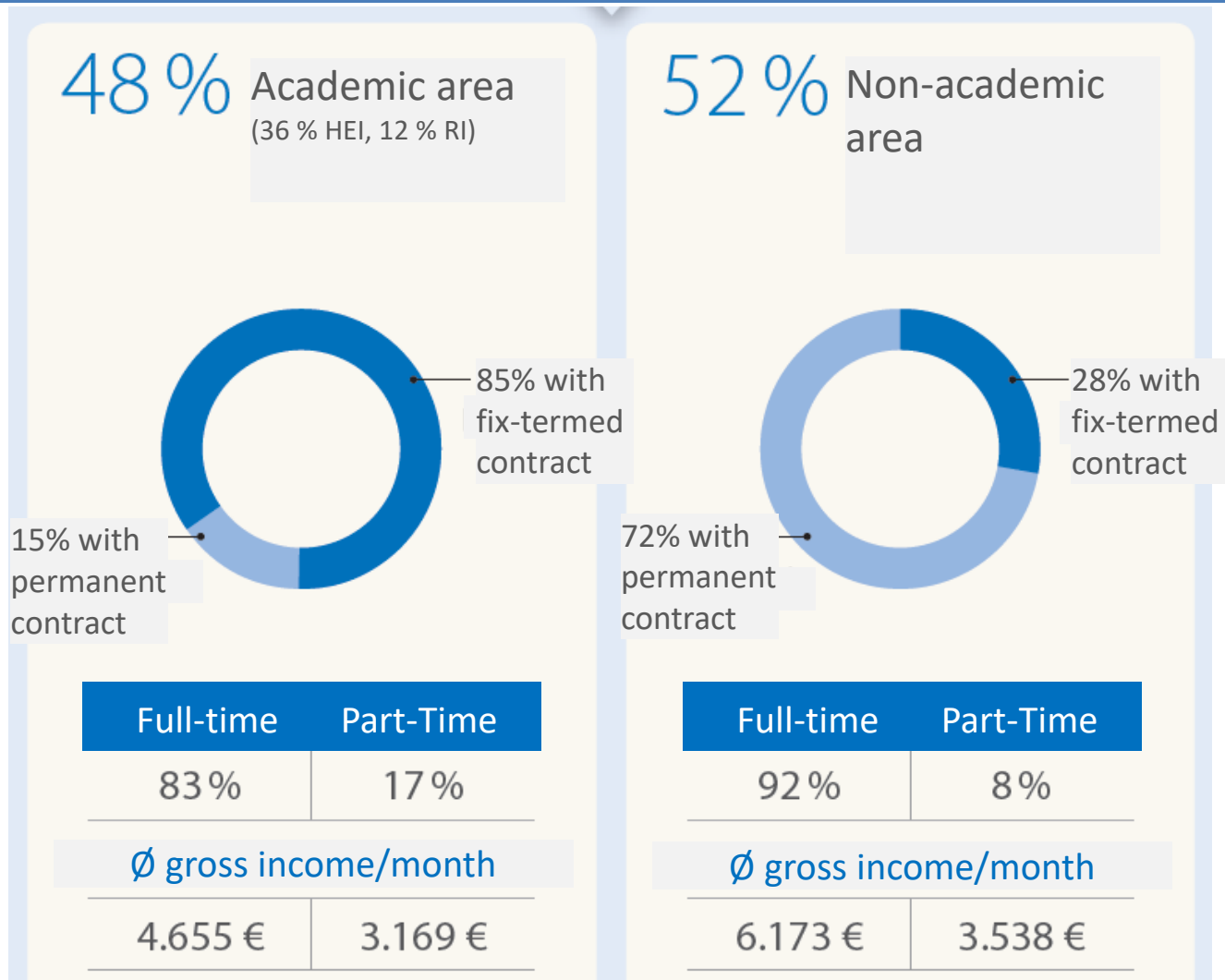


Full-time	Part-Time
88 %	12 %
Ø gross income/month	
5.488 €	3.291 €



Source: PhD-holder survey 2017, 3<sup>rd</sup> wave

# Professional situation of employees in research, development or academic teaching



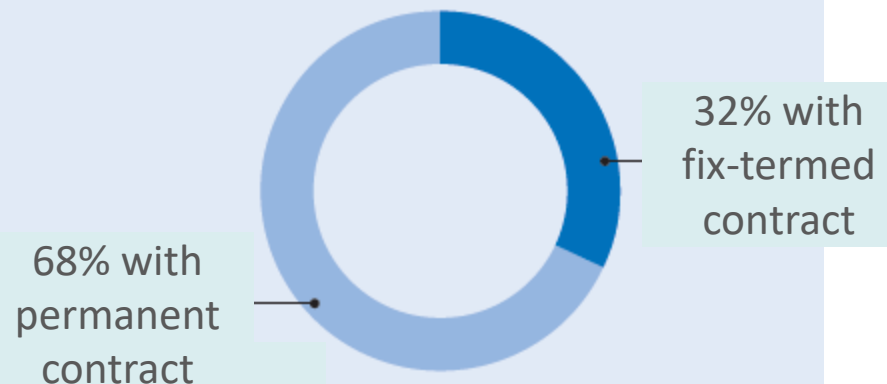
Source: PhD-holder survey 2017, 3<sup>rd</sup> wave

# Professional situation of employees outside research, development or academic teaching

58% are not in research, development or academic teaching

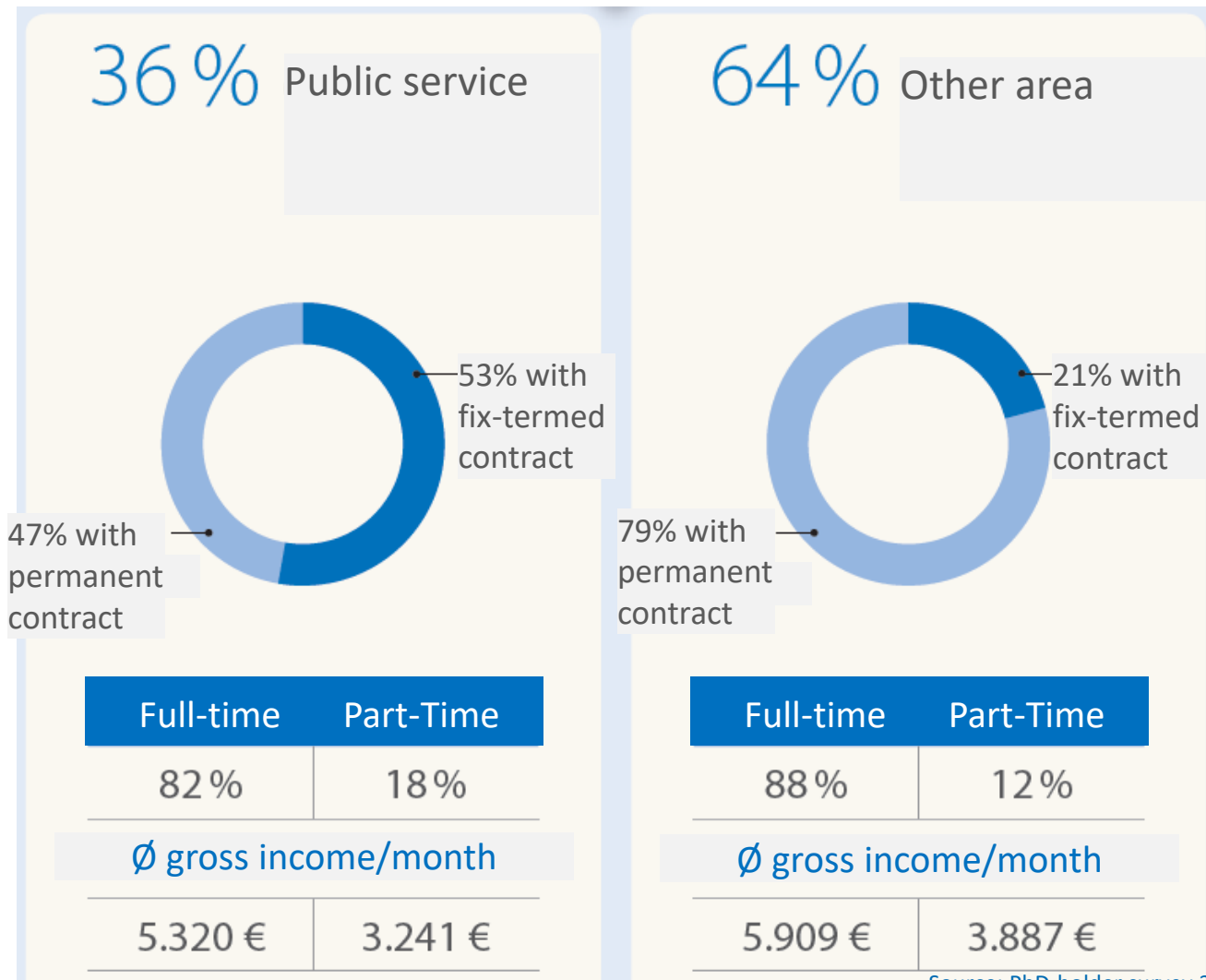


Full-time	Part-Time
86 %	14 %
Ø gross income/month	
5.689 €	3.563 €



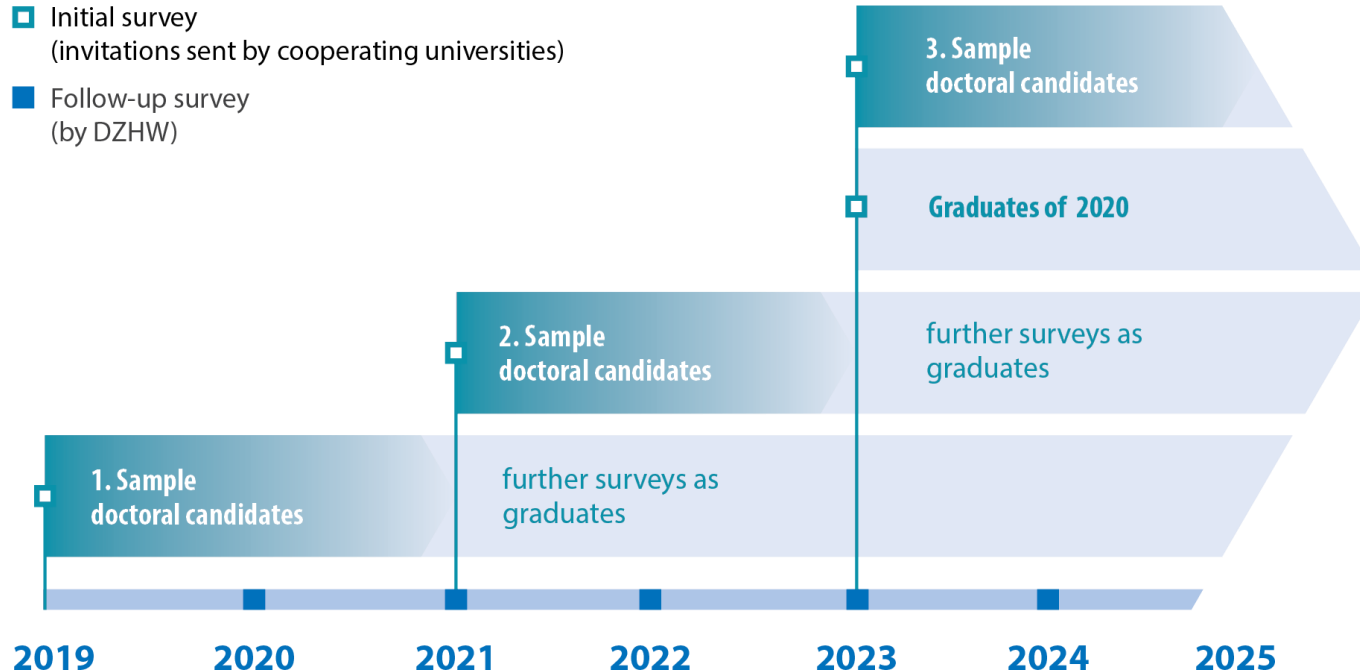
Source: PhD-holder survey 2017, 3<sup>rd</sup> wave

# Professional situation of employees outside research, development or academic teaching



Source: PhD-holder survey 2017, 3<sup>rd</sup> wave

# Nacaps: Design



From 2019: Results available in the data portal  
Regularly updated with results of follow-up surveys

# Nacaps: Topics

Motives and attitudes	Qualification process	Scientific work	Career paths
<ul style="list-style-type: none"> <li>■ Motives for graduating</li> <li>■ Decisions for certain universities</li> <li>■ Attitudes towards sciences</li> </ul>	<ul style="list-style-type: none"> <li>■ Mentor-Mentee relationship</li> <li>■ Ways of mentoring and support</li> <li>■ Satisfaction with mentoring</li> <li>■ Promotion and financing</li> <li>■ Fellowships in programmes and assessment</li> <li>■ Industrial doctorates</li> <li>■ Knowledge transfer</li> </ul>	<ul style="list-style-type: none"> <li>■ Competence development</li> <li>■ Cognitive career</li> <li>■ Networks and collaborative research</li> <li>■ Employment conditions</li> </ul>	<ul style="list-style-type: none"> <li>■ Career strategies and decisions</li> <li>■ Careers inside and outside academia</li> <li>■ Tenure track</li> <li>■ Recruitment strategies at universities of applied sciences</li> </ul>
Individual background		Outcomes	
<ul style="list-style-type: none"> <li>■ Aims in life</li> <li>■ Family and cohabitation</li> <li>■ Social origin</li> <li>■ Social capital</li> <li>■ Educational trajectories</li> <li>■ Personalitay traits</li> </ul>		<ul style="list-style-type: none"> <li>■ Research performance</li> <li>■ Involvement in teaching</li> <li>■ Publications</li> <li>■ Ph.D. sucess and drop-out</li> <li>■ Individual and societal returns</li> </ul>	<ul style="list-style-type: none"> <li>■ Balancing out work and family life</li> <li>■ Spacial, international and intersectoral mobility</li> </ul>



# Nacaps: Research questions

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## **Institutional conditions of qualification and support for young researchers**

- How widespread are the various forms of doctoral studies in Germany and what study conditions and support structures do they offer doctoral candidates?
- How do the different formal and informal doctorate contexts and support conditions affect the candidates' acquisition of skills and the socialisation of early career researchers?

## **Motives, determinants, selection and self-selection processes**

- What determines doctoral success, selection processes or career paths, and how is the relation between structural, individual and ascribed characteristics?
- How are individual decision processes related to institutional and systemic selection processes?
- How effective are recruitment and selection processes for the academic system?

# Nacaps: Research questions

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## **Career paths and prospects, in and outside the academic world**

- How do aspects of everyday life or conditions and opportunity structures on the (non-academic) job market influence decisions for or against career paths?
- How does the career situation of doctorate holders in the academic system compare to that of doctorate holders outside academia?

## **Individual and social outcomes and returns on investment**

- What contribution does gaining a doctorate or do early career researchers make to research, teaching, innovation and knowledge transfer?
- What individual and social returns do doctorates yield within and outside the academic world?

# Nacaps: 1<sup>st</sup> wave

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- 53 HEIs (out of 155)
- Survey 2019 (1<sup>st</sup> wave): Feb. 18<sup>th</sup> until May 1<sup>st</sup>
- 84.000 persons contacted
- 24.500 persons finished the questionnaire (29,2%)
- 17.500 confirmed participation in the panel
- 52% male, 48% female (off. statistics: 54% vs. 46%)

subjects	statistics 2014/15	Nacaps 2019
Cultural sciences, languages	17,5	12,2
Law, Economics, Social sciences	16,8	20,1
Maths, Science	30,4	29,1
Medicine	9,8	15,2
Engineering	18,7	17,8
rest	6,7	5,9

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# Thank you!

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