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Estimation of the costs of work-related injuries and diseases in Austria

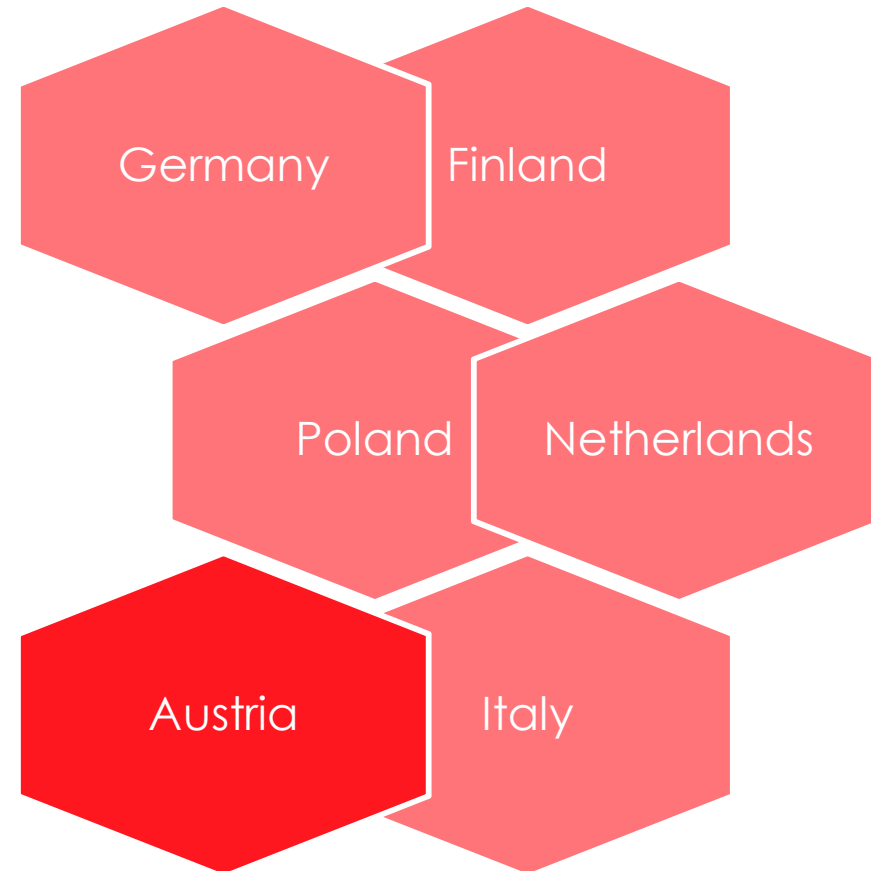
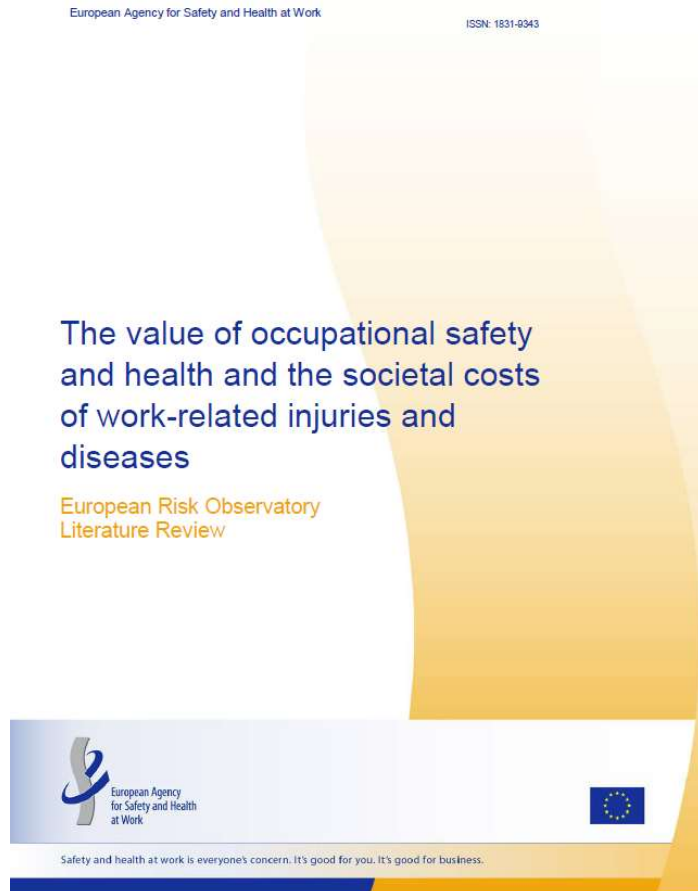
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EU-OSHA - Bilbao

10 October, 2019

- **Background and motivation**
- **Progress (and set-backs) so far**
- **Data availability and adaptations**
- **Preliminary results**
- **Open questions/issues**

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- **Limited evidence on costs of work-related injuries and diseases in Austria:**
 - **WIFO (2008), costs of diseases and injuries caused by physical & environmental occupational risks**
 - **Only major risk factors; attributive risks from Germany; no intangible cost components; based on absences from work**
 - **Estimated costs of physical and environmental occupational risks: about 1,3-1,4% of GDP**
- => Need for updated, more comprehensive and internationally comparable estimation**



→ Estimation for **Austria**, based on EU-OSHA approach

→ Project financed by the Austrian Chamber of Labour (**AK Österreich**)

Countries	Geographical location	Insurance system	% employed in services ^[1]
Finland	North	Mixed	73.1%
Germany	West	Bismarckian	73.9%
The Netherlands	West	Bismarckian	82.9%
Italy	South	Beveridgean	72.4%
Poland	Eastern	Bismarckian	58.3%
Austria	Central	Bismarckian	73.5%

Q:[1] Labour Force Survey 2015 (Eurostat).

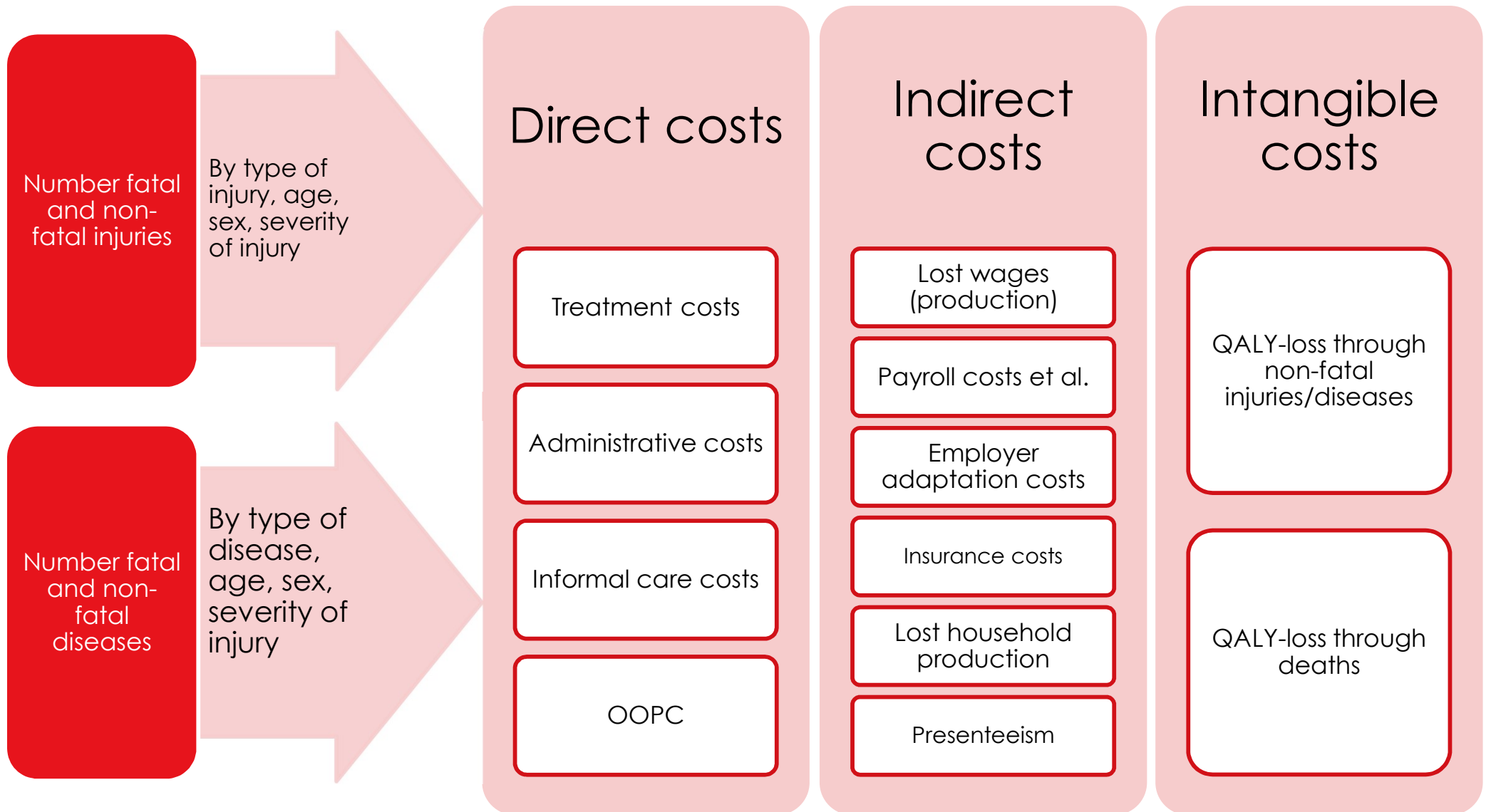
Total burden of disease for Austria

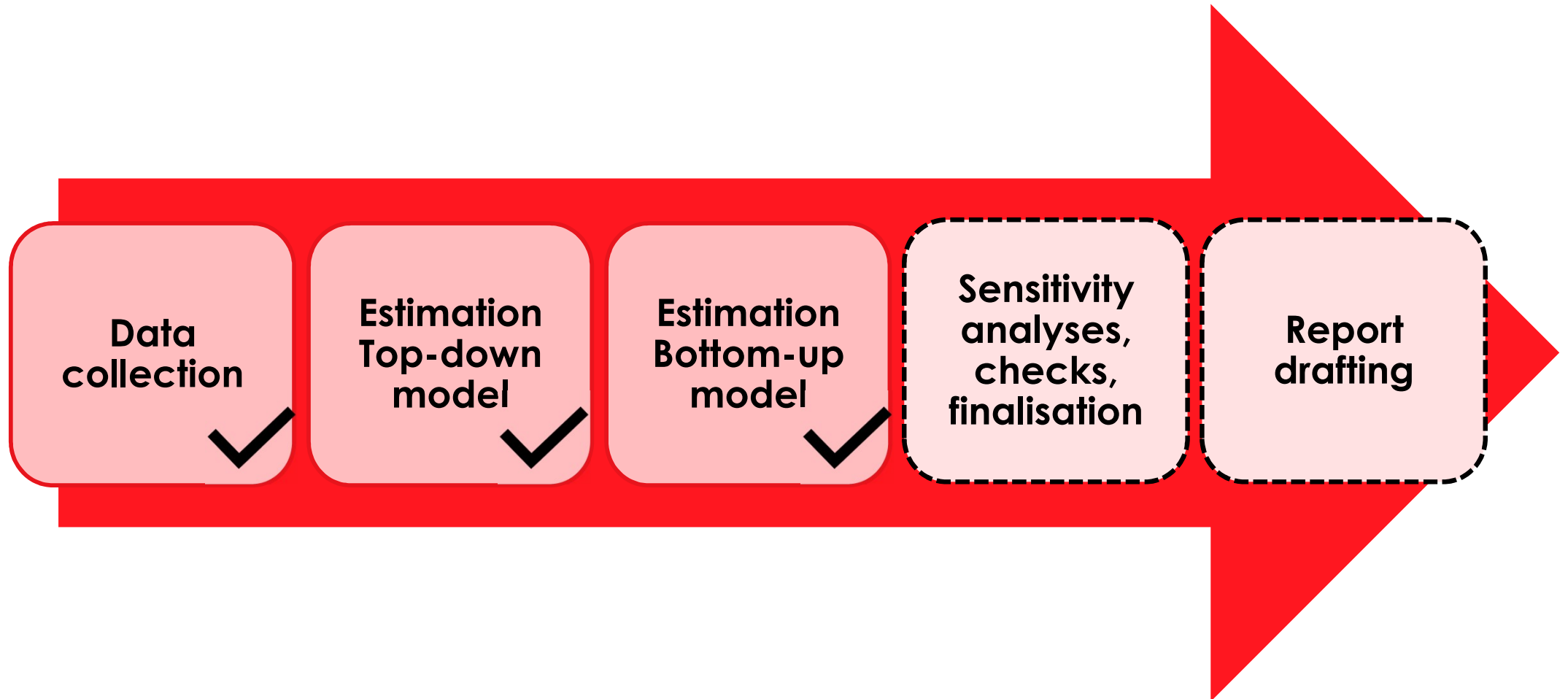
(WHO Global Burden of Disease Estimates 2000-2016)

Fraction attributed to occupational risks

(76% DALYs from IHME GBD Study 2016, 24% from literature)

Monetary valuation of disability-adjusted life years (DALYs)





A qualitative assessment of our progress so far in this project

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„dwarfs on giants' shoulders”...	High data requirements, lack of some crucial cost components
Very good documentation, (comparatively) easy replicability	Issues with respect to reliability/interpretation of international data

Indicator/data type	Source proxy	Motivation for proxy	Deviation from EU-OSHA approach
Attributable risks for some disease categories	Literature	WHO/IHME data do not contain attributable fractions for all diseases categories	No
Duration of healthcare treatment by disease	HSE (2011) for Britain	No data available for Austria.	No
Healthcare treatment costs for injuries and diseases	Destatis (Germany), Italian Ministry of Health (Lorenzoni – Koechlin, 2017)	No data available for Austria.	No
Value of a statistical life year	Various data from other EU countries	Values taken from studies for Austria augmented with information from international sources	No
Health-related quality of life	Data for Germany (Huber et al, 2017)	Austrian Health Survey uses different HRQL concept – German data ensure better comparability with other EU-OSHA country estimates	Yes

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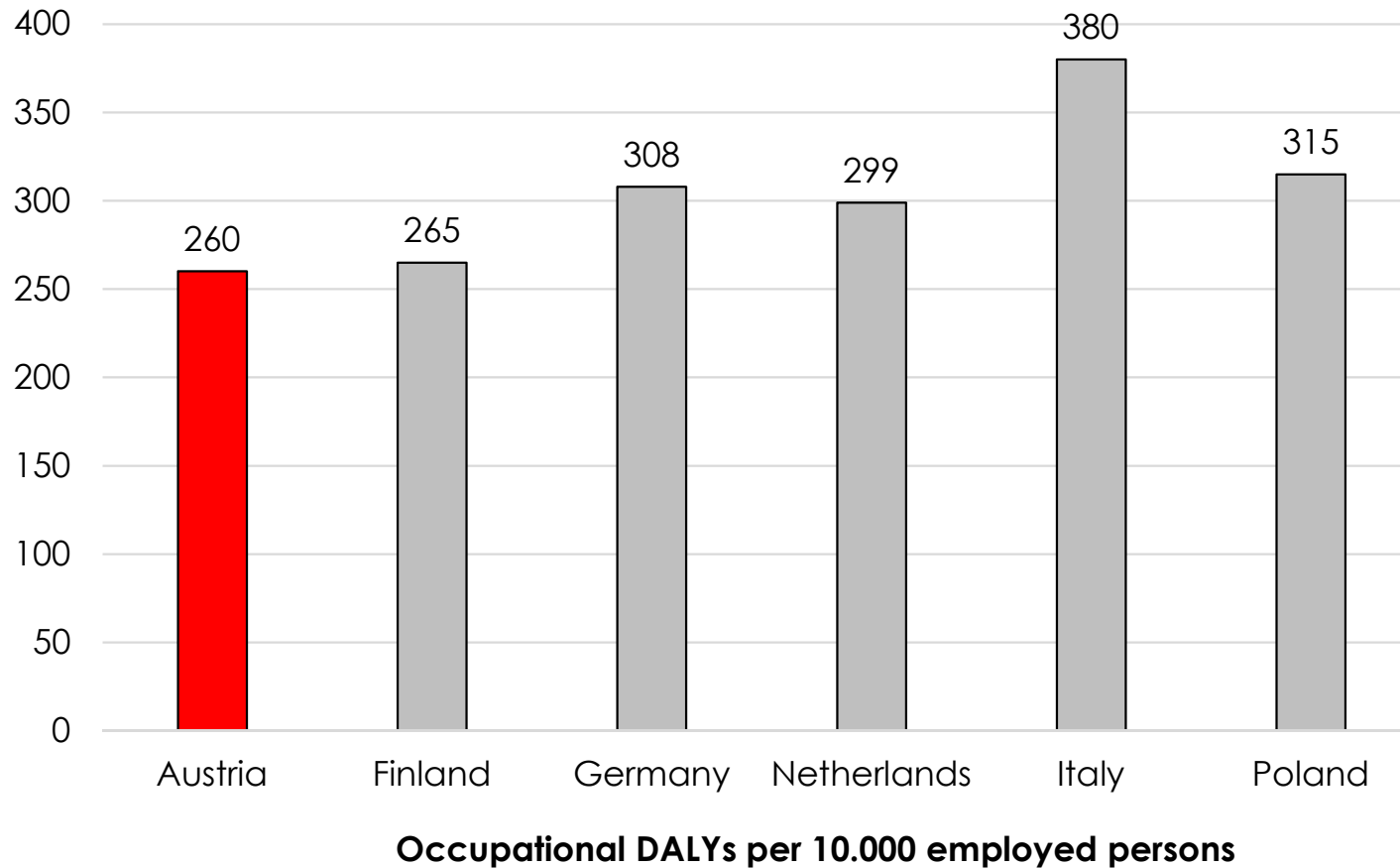
Adaptations with respect to EU-OSHA approach (bottom-up model)

Issue/cost component	Adaptation with respect to EU-OSHA	Impact on costs
Adaptations with significant impact		
Disease severity	Own calculations based on Austrian LFS module	↓↓
Lost household production	Own calculations based on Austrian EU-SILC data	↓↓
Adaptations with minor impact		
Informal care	Included also for fatal diseases	↑
Retirement age	Adapted to scheduled increase for women	↑
Wages	More detailed data (by 5-year age groups)	=
Future employment shares	Forecast based on Statistics Austria/WIFO data	↑
Health care costs of fatal diseases	More detailed calculation	=

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Disease severity	Own calculations based on Austrian LFS module	⇓
Household production lost	Own calculations based on Austrian EU-SILC data	⇓
Adaptations with minor impact		
Informal care	Included also for fatal diseases	↑
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Health care costs of fatal diseases	More detailed calculation	=

	Central scenario	Alternative scenario 1 (only IHME data)	Alternative scenario 2 (only AR from literature)
DALYs			
Occupational DALYs	107,880	107,779	134,321
Share of total DALYs in %	4.6%	5.0%	6.2%
Work-related DALYs per 10.000 workers	260	260	324

Source: GBD2016, WHO, Eurostat [lfsa_pganws], WIFO calculations; Employed persons: Self-employed and employees.



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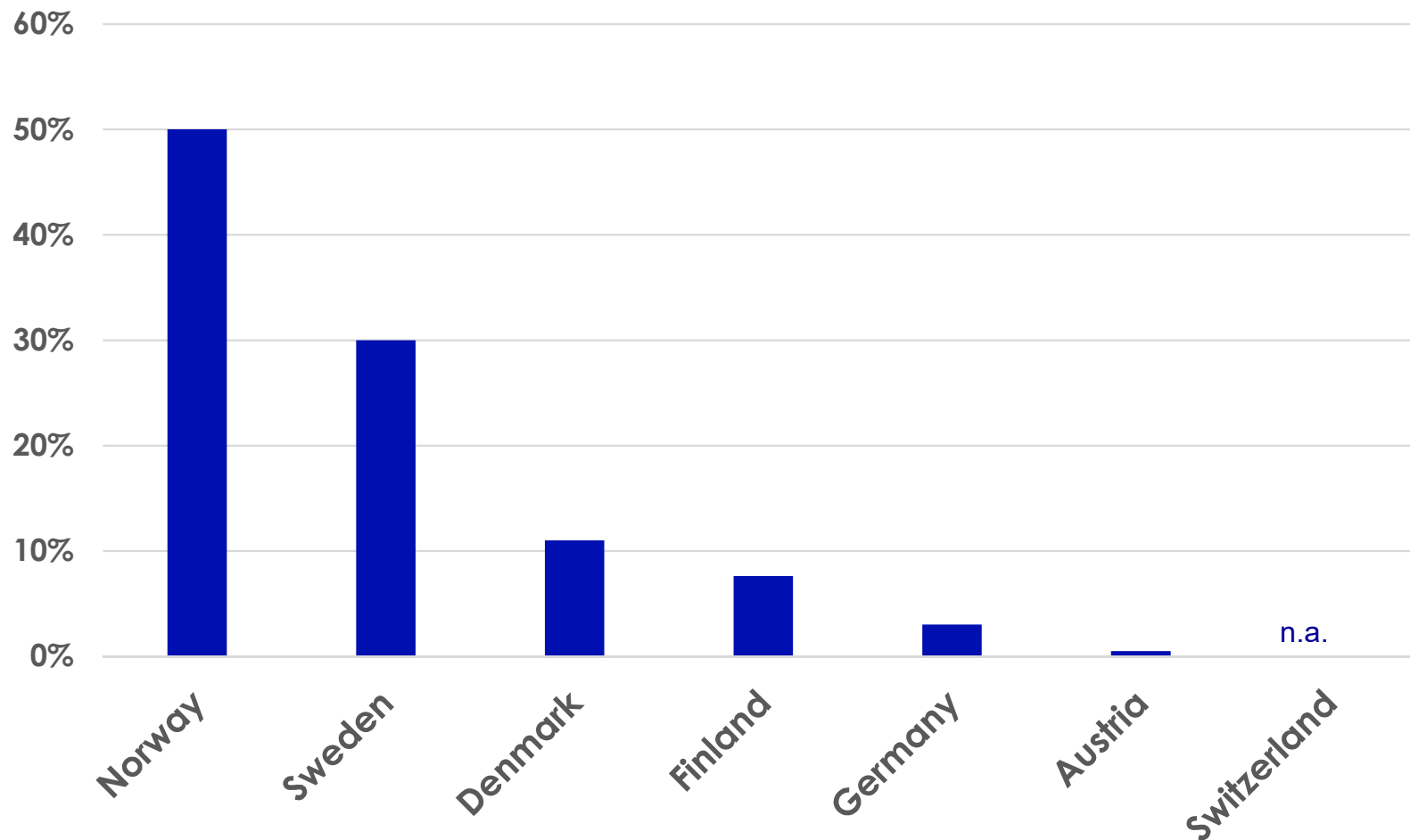
Still too early to provide sound interpretation of findings, but preliminary results suggest that:

- **Austria has a comparatively low number of cases, but comparatively high costs per case**

=> is long-term absence following work-related diseases the main cost driver?

=> is better reintegration of workers with health impairments the solution

Diffusion - Share of graded sick leave on sickness spells > 2 weeks



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- **Trade-off: international <> national data sources**
=> International comparability of data on severity?
 - **Distinction between employees and self-employed**
=> of relevance for stakeholder costs
 - **Monetary valuation of intangible costs**

Feedback and questions are very welcome:



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