



Bibliometric study of the FWF Austrian Science Fund

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{ NEW HORIZONS \ NEW CHALLENGES }

\\CONFERENCE 2013

evaluation of STI policies, instruments and organisations

Outline

- Introduction
- Data collection & field classification
- Indicators and benchmark units
- Main results
- Conclusions and future challenges

Introduction

- Bibliometric study for the FWF Austrian Science Fund (van Wijk & Costas, 2012)
- Scientific outputs recorded in the FWF publication system
- Main focus: publications in international scientific journals (WoS) during the period 2001-2010

Data collection & field classification

- List of publications by FWF
- Algorithmically matched against WoS CWTS database
 - 13,773 unique publications finally matched
- Disciplinary scheme: OECD
 - Re-classification of the different JCR subject categories

OECD classification

- 1.1 Mathematics
- 1.2 Computer and information sciences
- 1.3 Physical sciences
- 1.4 Chemical sciences
- 1.5 Earth and related environmental sciences
- 1.6.1 Biochemistry & Molecular Biology
- 1.6.2 Biology
- 1.6.3 Microbiology & Genetics
- 2 Engineering and Technology
- 3.1 Basic Medicine
- 3.2 Clinical Medicine
- 3.3 Health sciences
- 4 Agricultural sciences
- 5.1 Psychology
- 5.2 Economics and Business
- 5.9 Other social sciences (Soc sc, Interdisc)
- 6.1 *History and Archaeology*
- 6.2 *Languages and literature*
- 6.3 *Philosophy, Ethics and Religion*
- 6.4 *Arts (arts, history of arts, performing arts, music)*
- 6.5 *Other humanities*

- Humanities excluded
- JCR 'Multidisciplinary' category split across main OECD categories

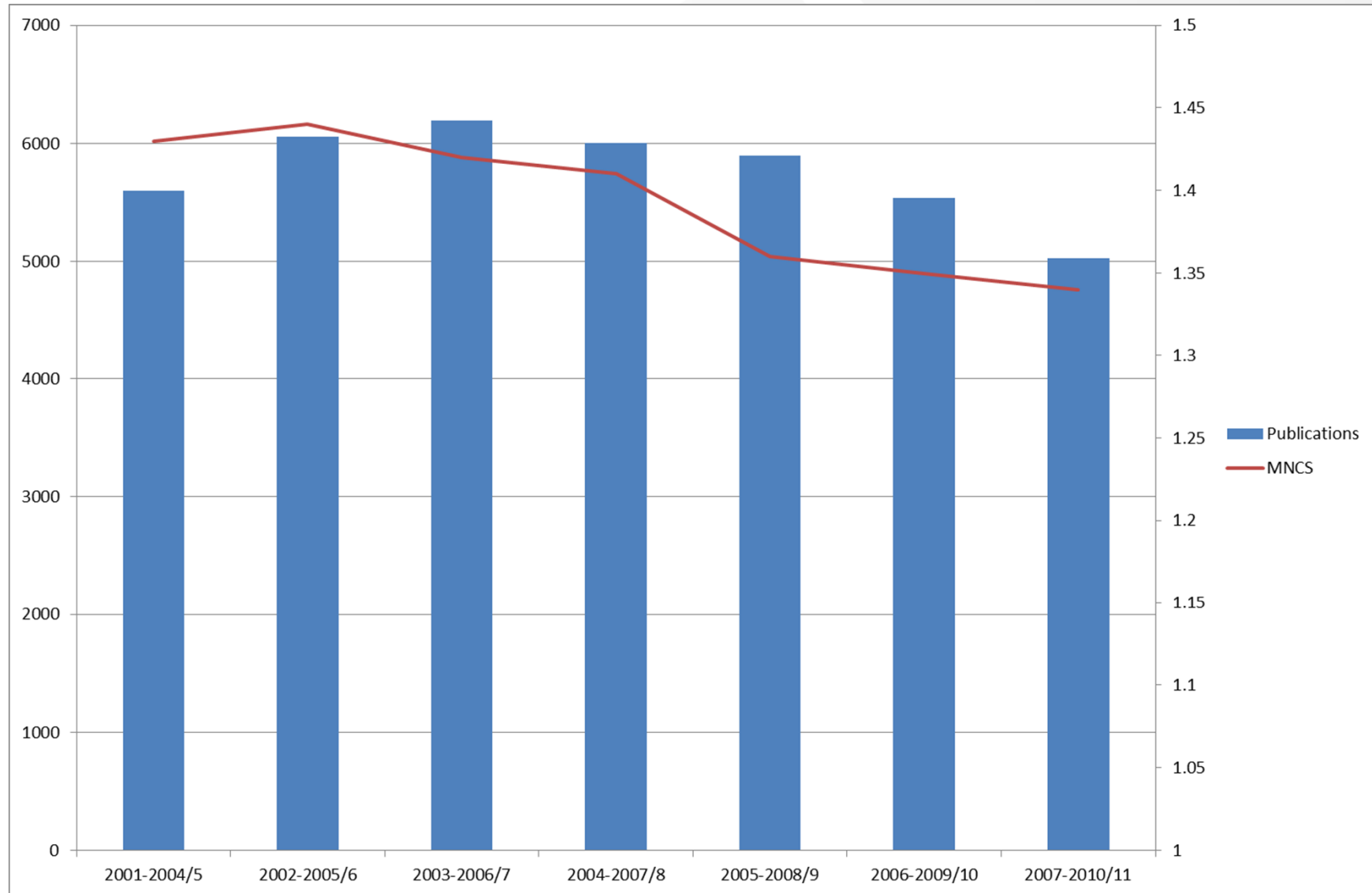
Indicators and benchmark countries

- Standard CWTS bibliometric indicators
 - *Publications, impact, field-normalized impact, journal-normalized impact, highly cited publications, collaboration, etc.*
 - Weighting of letters (0.25)
 - One extra year of citations (2011)
- Comparison with benchmark countries:
 - Austria (w/out FWF); Switzerland; the Netherlands; Sweden; Denmark; Finland; USA; Germany and the United Kingdom

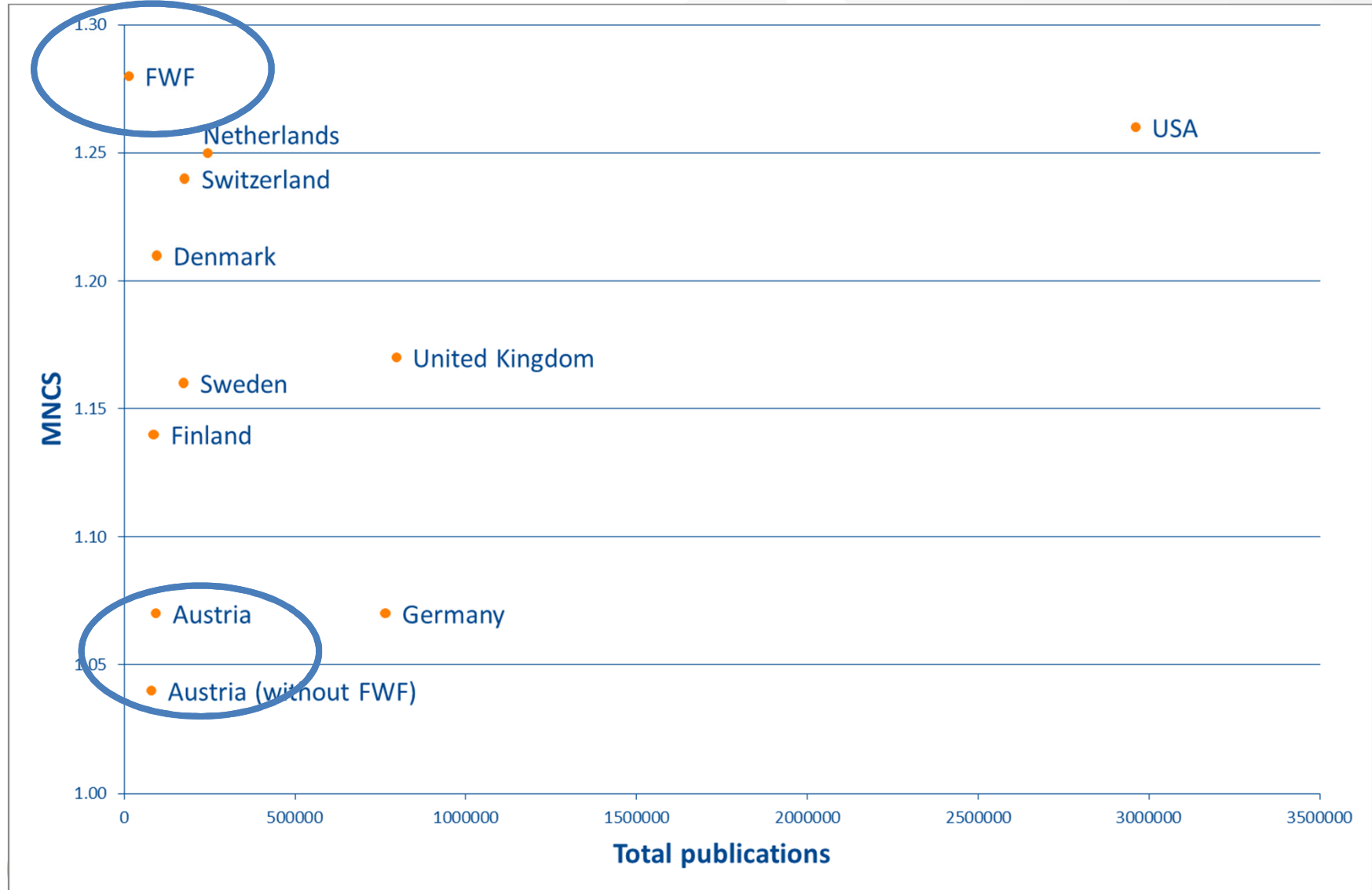
Main results

- 81% external coverage; 84% internal coverage
- 13,721 weighted pubs; 296807 citations
- MNCS= 1.35; MNJS=1.28
- 14% of Austrian WoS-covered publications are supported by FWF
- 20% of Austrian citations

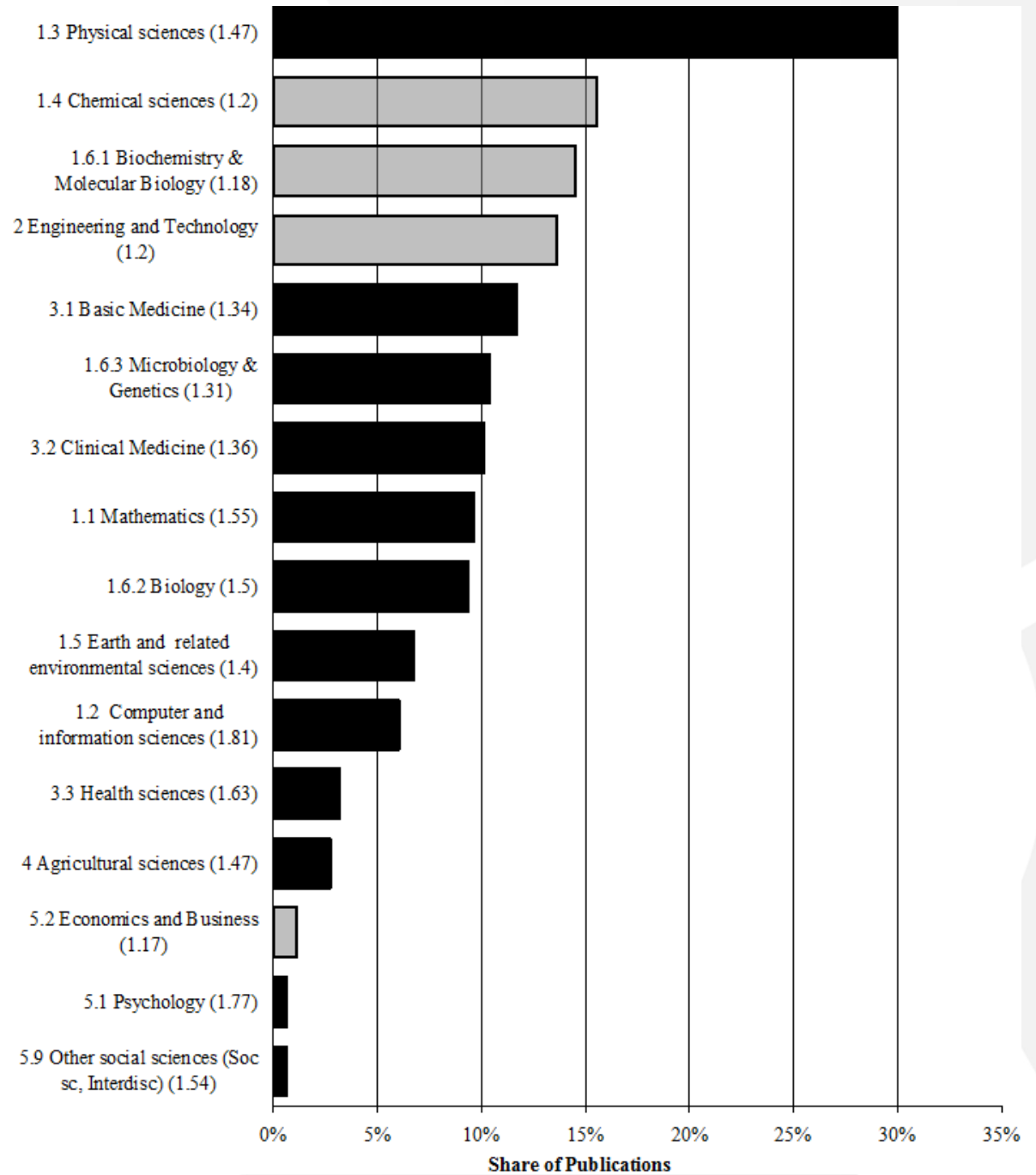
Main results – trend analysis



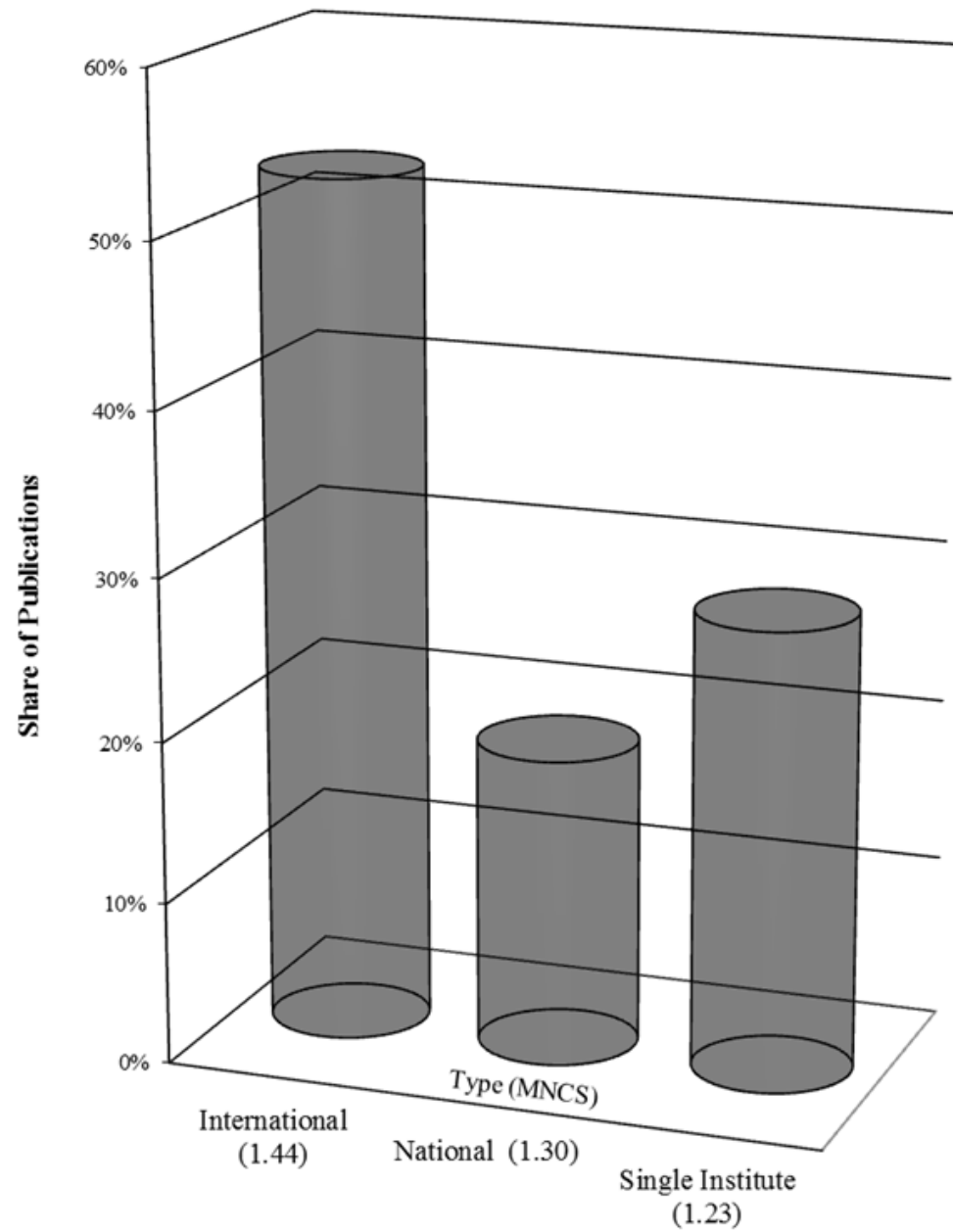
Main results - benchmark



Main results - profile



Main results – collaboration



Impact:

Low



Average



High



Conclusions

- Strong scientific position of FWF internationally and within Austria
 - *Recent decrease in publications and citations*
- Similar performance to stronger nations (US, Switzerland, the Netherlands)
- High impact in most fields of science
- Great focus on international collaboration (*facilitator?*)

Future challenges

- How to ‘bibliometrically’ study funding organizations?
 - Data collection
 - Conceptual problems
 - *Linkage of publications to funding?*
 - *When does the effect of funding ‘vanish’?*
 - *Contribution of funding? Collaboration?*
- Benchmark analysis of funding organizations
 - *Countries, regions*
 - *Other Funding Organizations*
 - *Types of funders and types of funding*
 - *Funding acknowledgements*

Thanks for your attention!

**Questions?
Comments?**