

Modelling to support TB control policy and practice in the era of the End TB Strategy

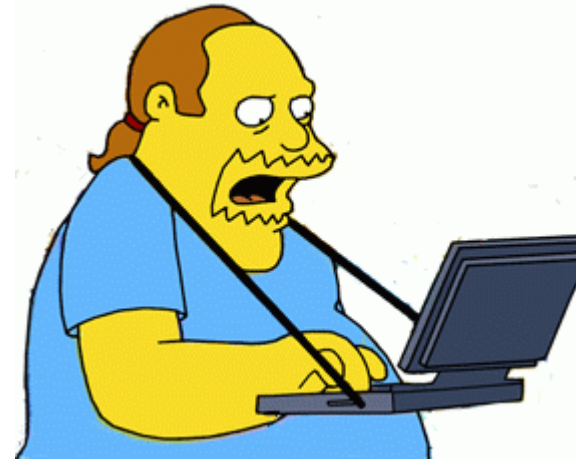
Richard White, LSHTM
for TB MAC

There is a critical need to strengthen support for country and global decision makers...

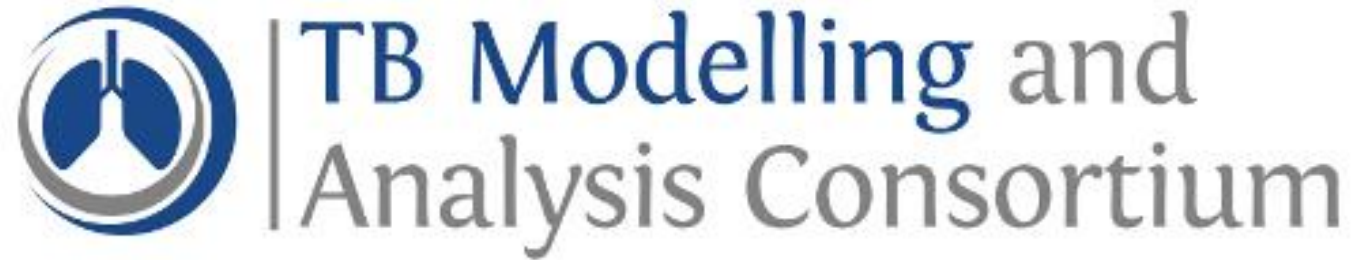
- End TB Strategy
- Global Plan to End TB
- Global Fund New Funding Model
- Resource constraints



What can modellers do to help?



http://simpsons.wikia.com/wiki/Jeffrey_Albertson



- **Aim**

- to **improve global TB control by coordinating and promoting mathematical modelling and other quantitative research activities to provide scientific support for policy decisions and implementation**

- **Objectives**

- **Identify research questions** concerning TB control that require input from mathematical modelling or other quantitative research
- Facilitate **sharing of data, information and expertise** to achieve consensus on current knowledge and knowledge gaps, methodological standards and current best practice for TB control decision-making
- **Fund** small analytical/modelling research projects
- **Disseminate results and tools** to key stakeholders including TB control programmes and donors

Organisation

- **Consortium**

- Open to anyone using mathematical models or other quantitative methods to answer TB control questions

- **Committee**

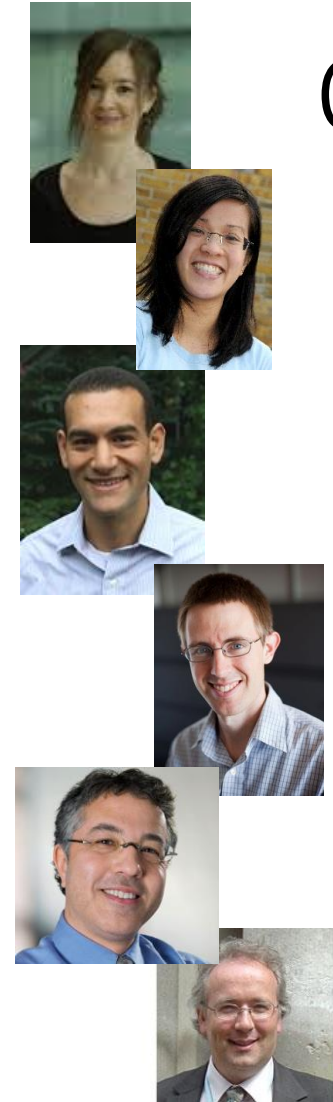
- Anna Vassall (LSHTM), Katherine Floyd (WHO), David Dowdy (JHU), Ted Cohen (Yale), Philip Eckhoff (IDM), Michael Kimerling (KNCV), Geoff Garnett (BMGF), Damian Walker (BMGF), Richard White (Chair, LSHTM)

- **Secretariat**

- Rein Houben
- Christina Albertsen

- **Advisory Panel**

- Mario Raviglione (WHO/GTB), Lucica Ditiu (STB Partnership), Jane Carter (Union), Jaap Broekmans (KNCV), Mehran Hosseini (Global Fund), Amy Bloom (USAID), Bruce Levin (Emory), Phil LoBue (CDC), Peter Kim (NIAID/NIH)



TB MAC Activities

- Work areas
 - TB/HIV, Diagnostics, Drugs
 - Post-2015 WHO Targets – 3 meetings
 - Socio-economic determinants
- Funding for modelling projects
- TB Modelling Course at Union Conferences (Tuesday)

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PERSPECTIVE

How can mathematical models advance tuberculosis control in high HIV prevalence settings?

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SUMMARY

Existing approaches to tuberculosis (TB) control have been no more than partially successful in areas with high human immunodeficiency virus (HIV) prevalence. In the context of increasingly constrained resources, mathematical modelling can augment understanding and support policy for implementing those strategies that

the difficult diagnosis and high mortality of TB-HIV; 2) the high risk of disease progression; 3) TB health systems in high HIV prevalence settings; 4) uncertainty in the natural progression of TB-HIV; and 5) combined interventions for TB-HIV. Efficient and rapid progress towards completion of this modelling agenda will

Session N.00472

An introduction to tuberculosis modelling (TB Modelling and Analysis Consortium)



Title An introduction to tuberculosis modelling (TB Modelling and Analysis Consortium)

Type of session Post-graduate Course

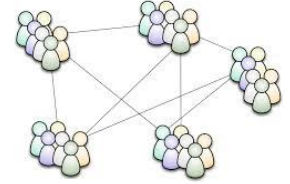
Track TB epidemiology

Duration Full-day

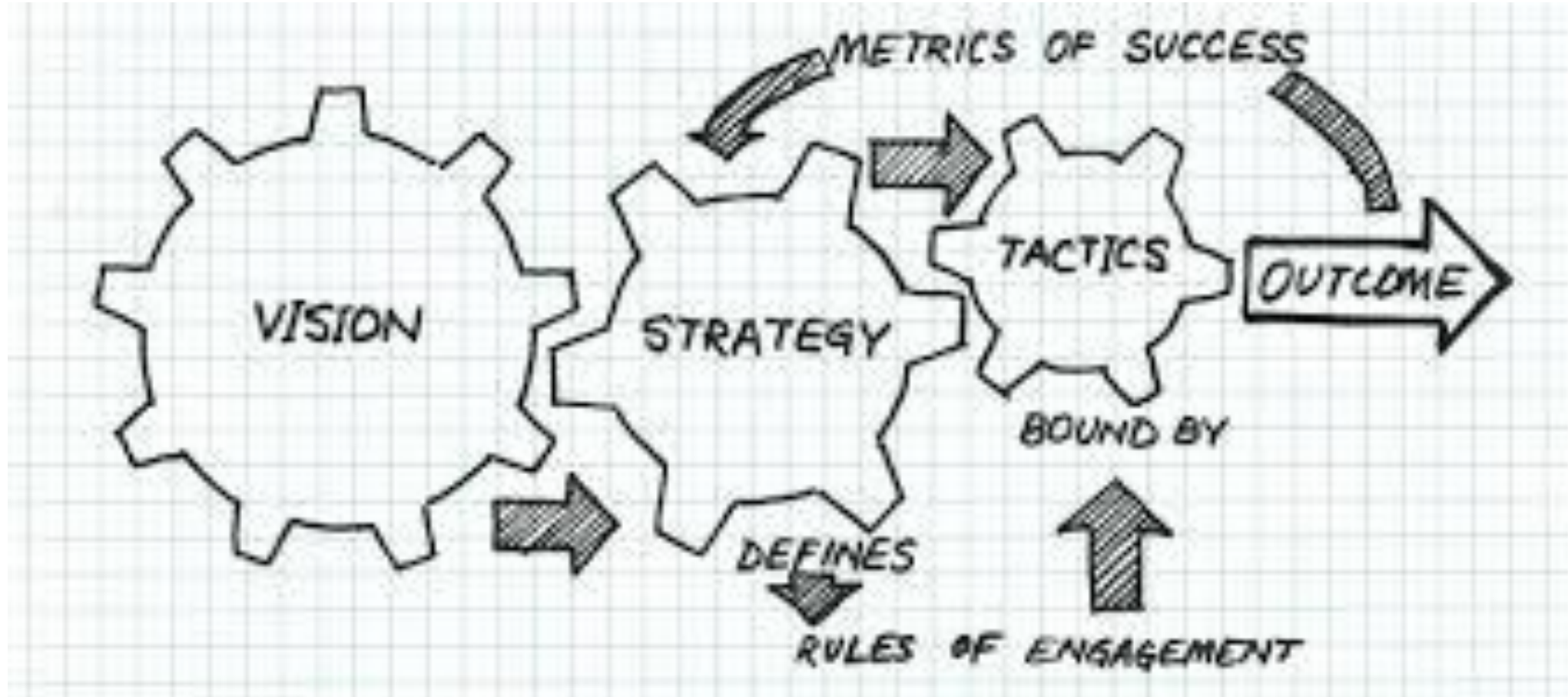
Max attendees 40

TB MAC Impact

- Helped foster a community of TB modelers
- Helped foster modeller <--> stakeholder links
- Provided evidence at numerous high level meetings
 - ➔ On GFATM Expert Panel that reviewed scientific evidence that led to decision to increase % of funds allocated to TB from short term low of ~16% to 18% (or at least maintain at 18%)
- Funded models/methods development with influence at
 - **Global level**, eg **Methods used by WHO** to make estimates for HIV+ TB incidence and mortality
 - **Country level**, eg
 - ➔ TB Targets work used in 1st ever TB and HIV investment case in South Africa, **leading to ... MORE LATER**
 - ➔ Tools funded by TB MAC used to improve the recent GFATM Concept Note submission in Viet Nam..., **resulting in MORE LATER**, and in revised NSP in Ghana
- But much more to be done...



TB MAC – the new vision...



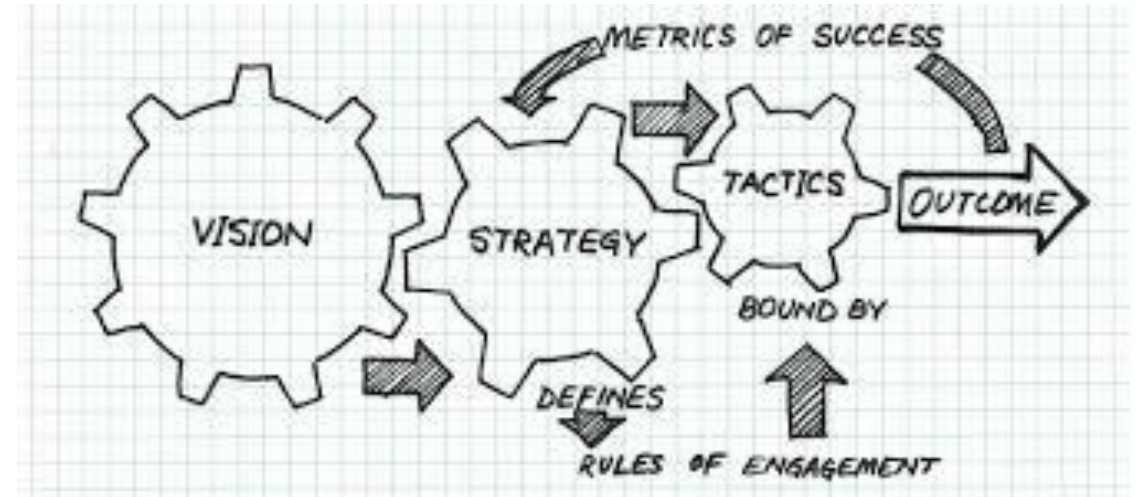
TB MAC Renewal 2016-18

- 4 major inputs
 - Survey of modellers and other stakeholders (2014)
 - Needs assessments (2015)
 - Independent external evaluation (2015)
 - BMGF needs (ongoing)
- Facilitated committee discussions
- Core proposal drafting team



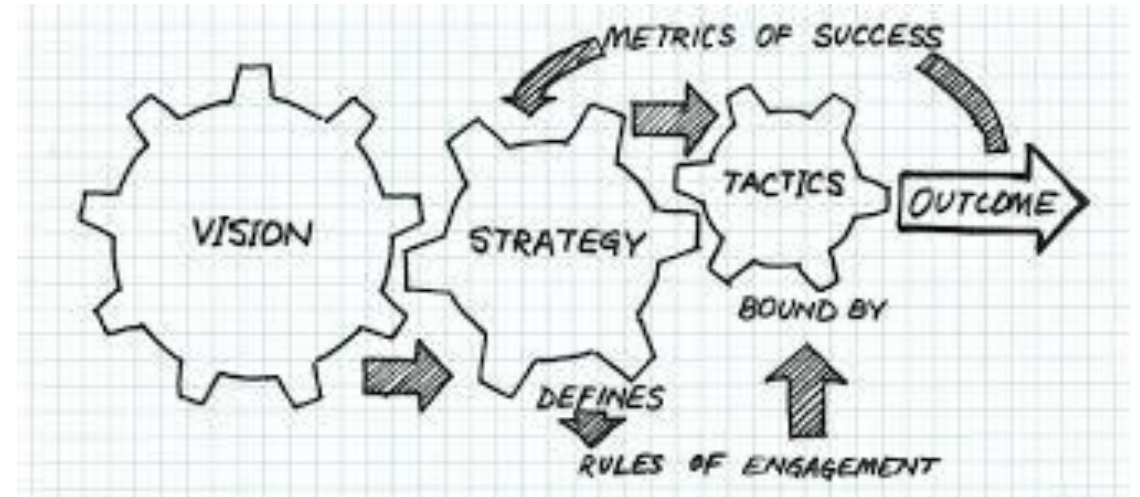
New vision...

... to increase the effectiveness and efficiency of TB control policy and practice at global and country level

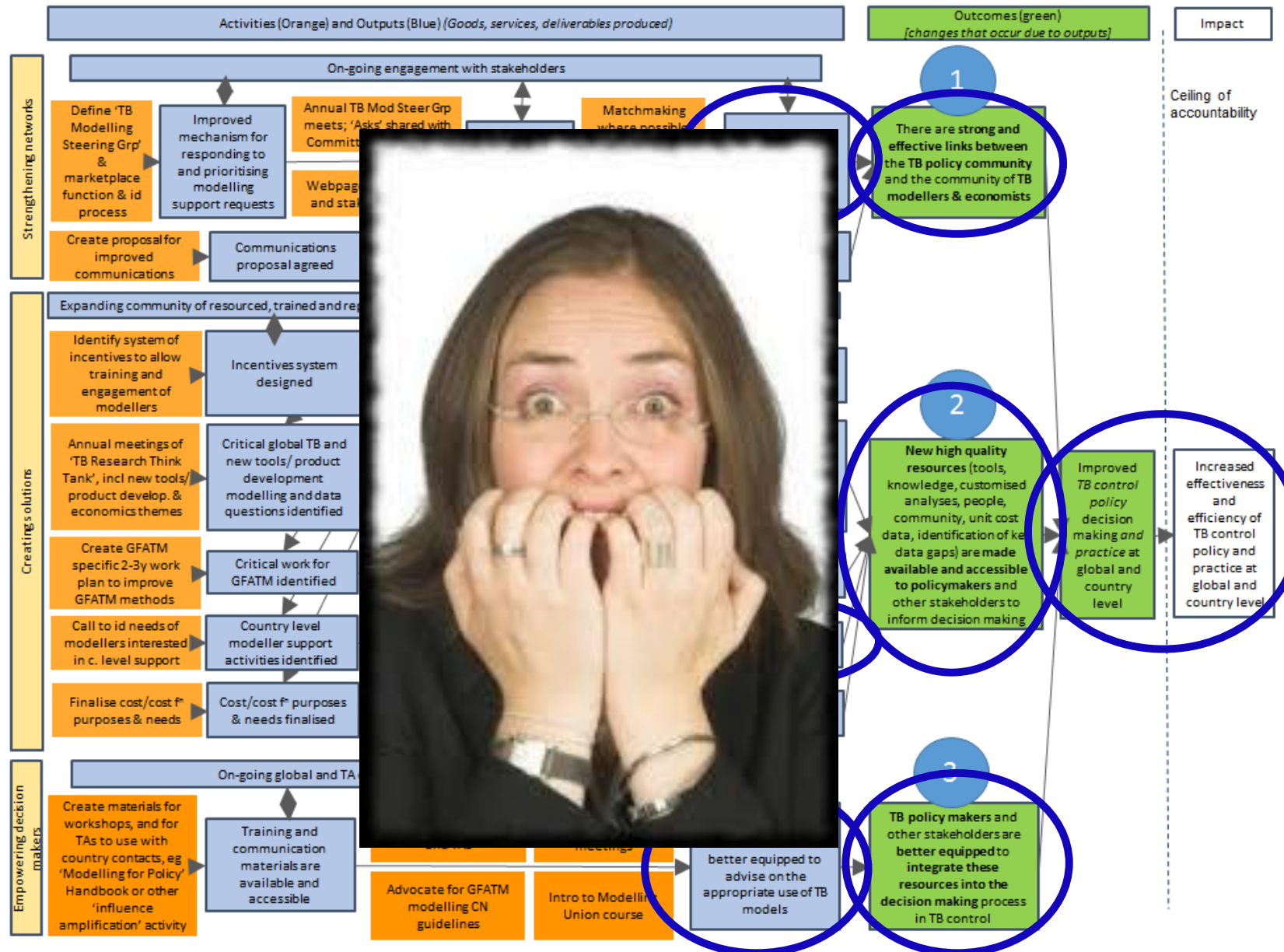


We will achieve this by ensuring...

1. There are **strong and effective links between the TB policy community and the community of TB modellers & economists**
2. **New high quality resources** (tools, knowledge, customised analyses, people, community, unit cost data, identification of key data gaps) **are made available and accessible to policymakers** and other stakeholders to inform decision making
3. **TB policy makers** and other stakeholders are **better equipped to integrate these resources into the decision making** process in TB control



TB MAC Theory of Action (with focus on sessions today)



Today...



Imperial College
London



- TIME TB Model: a new publicly available TB model to support country-level TB control policy (Rein Houben)
- Experience using models to support TB control policies in Vietnam (Hoang Thanh Thuy)
- Modelling to explore the cost-effectiveness and resource implications of reaching the post-2015 targets (Nick Menzies)
- Experience using models to support TB control policies in South Africa (Yogan Pillay)



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