



IMI2 Strategic Research Agenda

The Right prevention and treatment,
to the right patient, at the right time

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Director Science Policy
Barcelona, 13 January 2015

IMI delivers on Innovation and Health

- * Established **robust validated models** for Alzheimer, Diabetes, Schizophrenia, Asthma
 - * Developed **clinically relevant biomarkers** for Alzheimer, Diabetes, Schizophrenia, Asthma
 - * Established **robust tools for drug safety prediction**, prevention and monitoring
 - * Establishment and regulatory submission **of key standards and tools for drug development** in infectious diseases, COPD, diabetes
 - * **Improved clinical trial design** and process in schizophrenia, pain, autism
 - * Co-funding by EU of **antibiotics development**
 - * Projects launched and planned on **use of real life data** and alignment of regulators and payers data requirement
- Many of the above pave the way for new regulatory pathways aligned with science and technology development and creating pull incentives
- Uptake by Regulators has started (guidance, biomarkers)

IMI2: EU Partnership for Health

For integrated healthcare solutions

- * Focus: **stratified medicines** and **healthcare priorities**
- * Integrated solutions: **prevention and treatment**
- * **End-to-end agenda**: R&D, regulatory, access/healthcare practice
- * **Multi-sector**: within and beyond life sciences

Cash for public
partners



European
Commission
From H2020

1638 mln

+ 1 bn in IMI1

Contributing
own resource

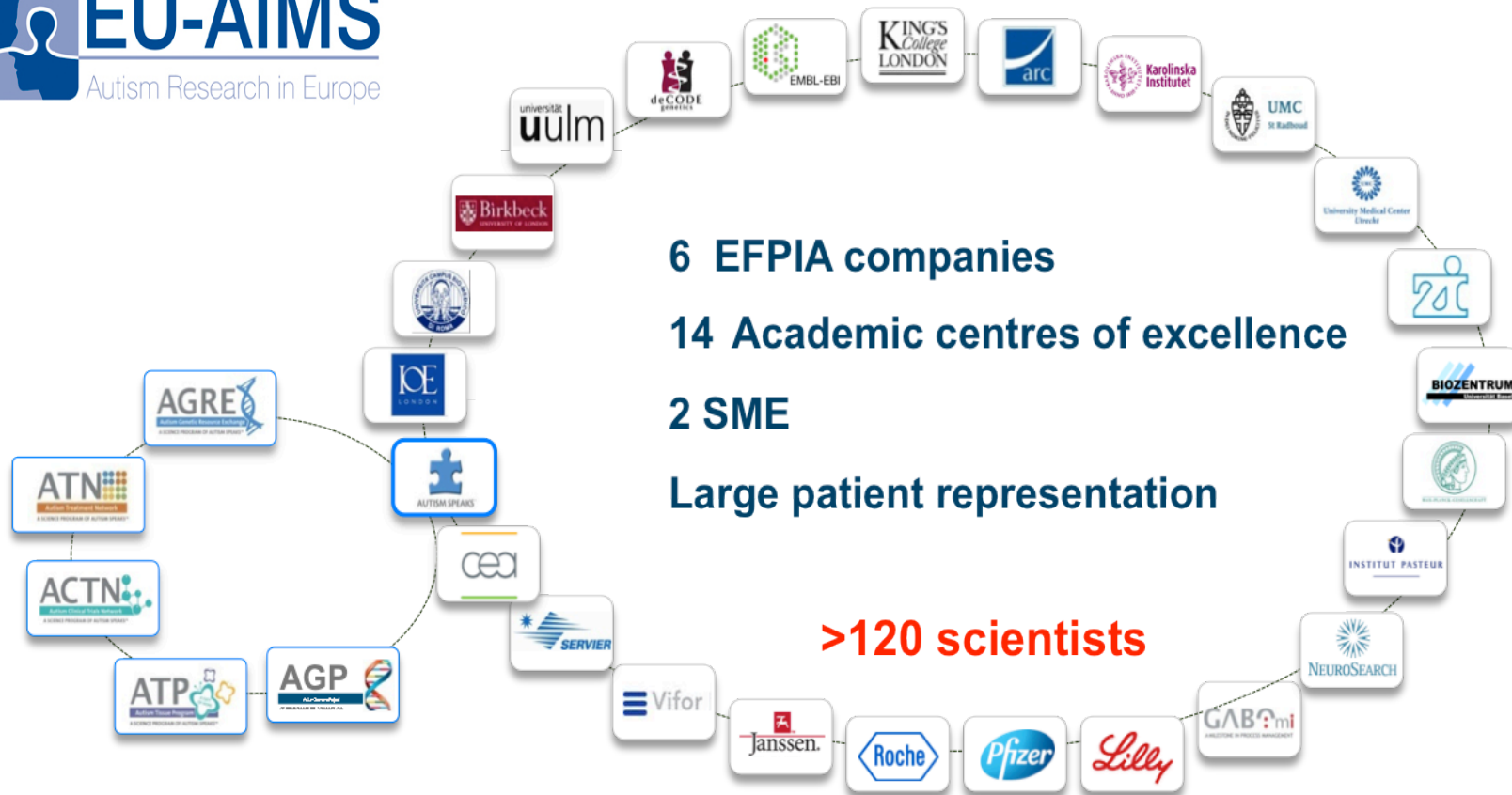


EFPIA direct
and indirect
members

1425 mln

+ 1 bn in IMI1

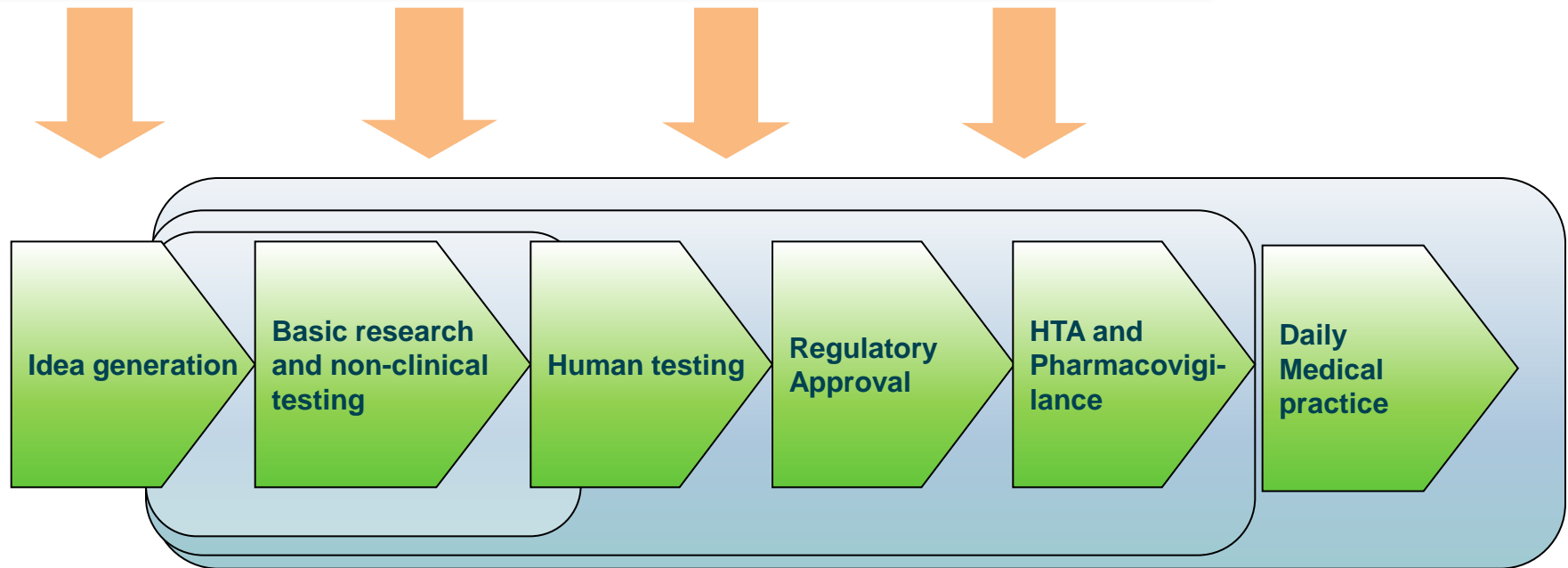
Others
213 mln



Budget: €35 million

Evolution of IMI – the road to IMI2

Make Drug R&D processes in Europe more efficient and effective and enhance Europe's competitiveness in the Pharma sector

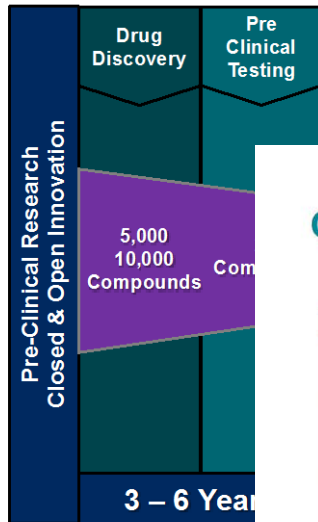


**Primary focus of
early IMI calls
2007 SRA**

**Shift to also addressing
challenges in in society and
healthcare
2011 SRA**

**IMI 2
includes real life
medical practice
2013 SRA**

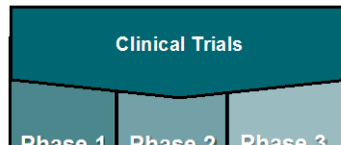
Current EU pathways are expensive and slow in getting new therapies to patients



Total Cost: \$2 -

efpia

Source:
CBO,
Forbe:



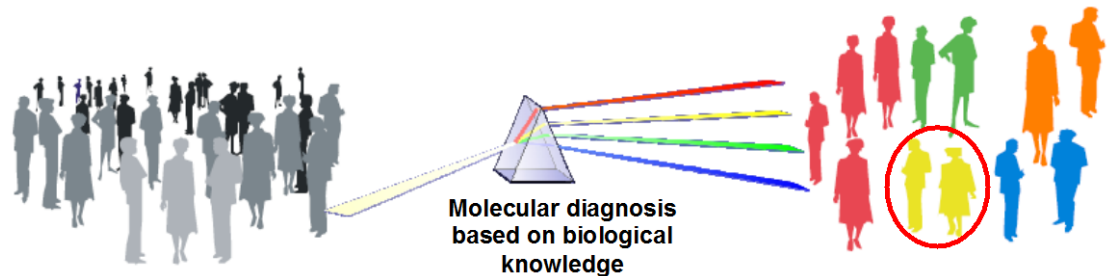
New therapies don't reach patients until here

General response rates to modern medicine

PATIENTS CAN RESPOND DIFFERENTLY TO THE SAME MEDICINE	
ANTI-DEPRESSANT (SSRI's)	
ASTHMA DRUGS	
DIABETES DRUG	
ARTHRITIS DRUG	
ALZHEIMER'S DR	
CANCER DRUGS	
Percentage of the patient po	

efpia

Science offers new opportunities



We treat a population.
Some respond and some don't

We treat a *targeted* population
They all respond

efpia

IMI2 vision – towards integrated healthcare solutions

- ✱ Addressing **healthcare priorities** identified by the WHO 2013 report
- ✱ Strategic Research Agenda aimed at progressing the vision of **stratified medicines: prevention, treatment and health management**
- ✱ Entire product cycle **from discovery, through development to healthcare delivery and access models**
- ✱ **Collaboration across sectors** to harness all knowledge and technologies which can contribute to IMI2 vision - diagnostics, imaging, IT, medical devices, ...

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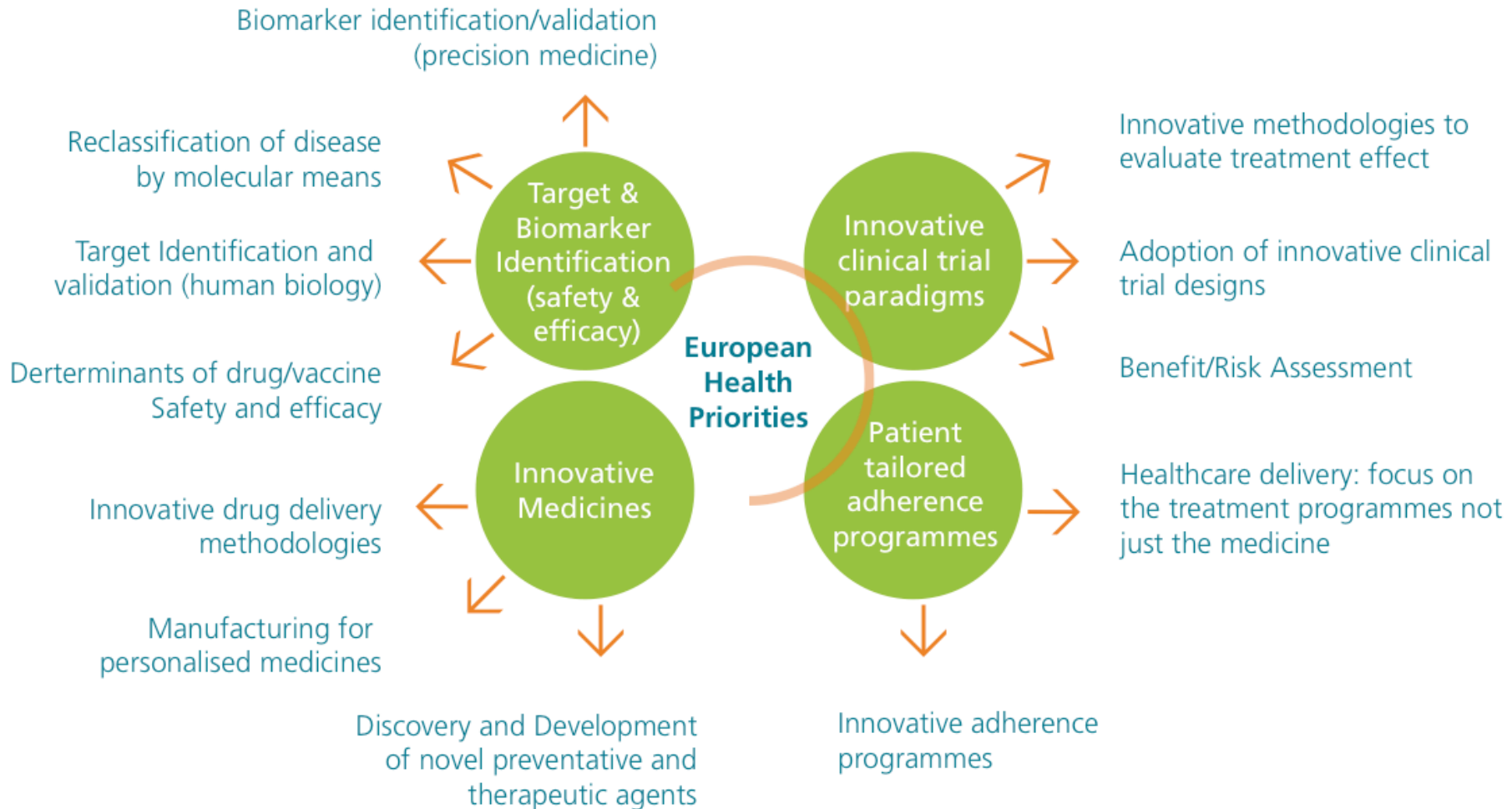


Priority Medicines for Europe and the World 2013 Update

Warren Kaplan, Veronika J. Wirtz,
Aukje Mantel-Teeuwisse, Pieter Stolk,
Béatrice Duthey, Richard Laing

9 July 2013

Major Axis of Research



DRIVE CHANGE IN DELIVERY OF MEDICAL PRACTICE

IMI2 scientific programme: First five big themes

Therapeutic Areas and Cross-cutting Themes

* **Neuro-degeneration**

Successfully prevent and treat dementia and other neurodegenerative diseases

* **Prevention and treatment of immune-mediated disease**

Advance immunological understanding to deliver new medicines and new and better vaccines

* **Metabolic disorders**

Tackle all phases of disease and its complications, including prevention and early interception

* **Infection control**

Address big societal problem related to multidrug resistance and develop new and better vaccines

* **Translational Safety**

Development of new human biology platform to predict toxicity and safety during early drug development

Differentiating Enablers for all themes

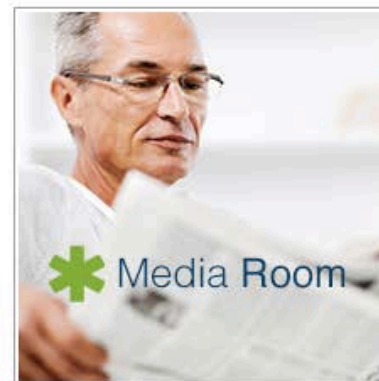
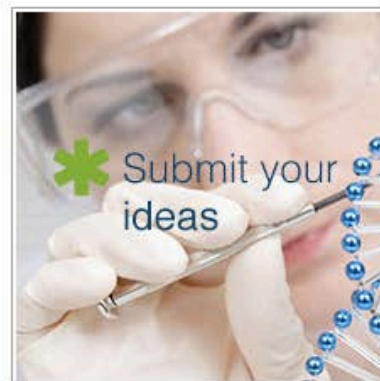
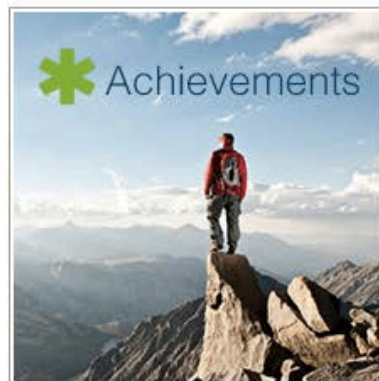
Towards early and effective patient access to innovative prevention and treatment solutions (MAPPs):

- Target validation based on human biology
- Stratified medicine, precision medicine
- Innovation in clinical trials
- Data generation and interpretation (knowledge management)
- Prevention, disease interception, patient adherence (incl. societal acceptance of vaccines)
- Effect on medical practice and outcomes (health/disease management)
- Regulatory framework (including pharmacovigilance)
- Patient access

How to submit a proposal for a project or a scientific question?



Innovative Medicines Initiative



Conclusions

- ✱ Focused: stratified medicines and healthcare priorities
- ✱ Healthcare solutions: prevention and treatment
- ✱ End-to-end: R&D, regulatory, access/healthcare practice
- ✱ Multi-sector: within and beyond life sciences – there is room for win-win collaborations
- ✱ Submit your ideas: <http://imi.efpia.eu/>



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