

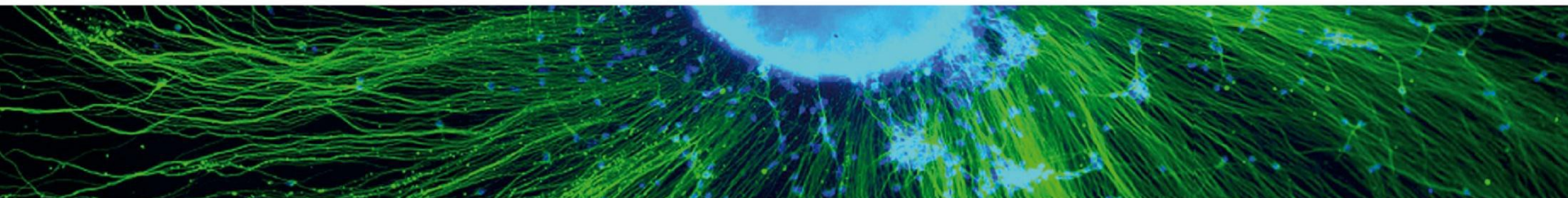


[www.esf.or](http://www.esf.or)

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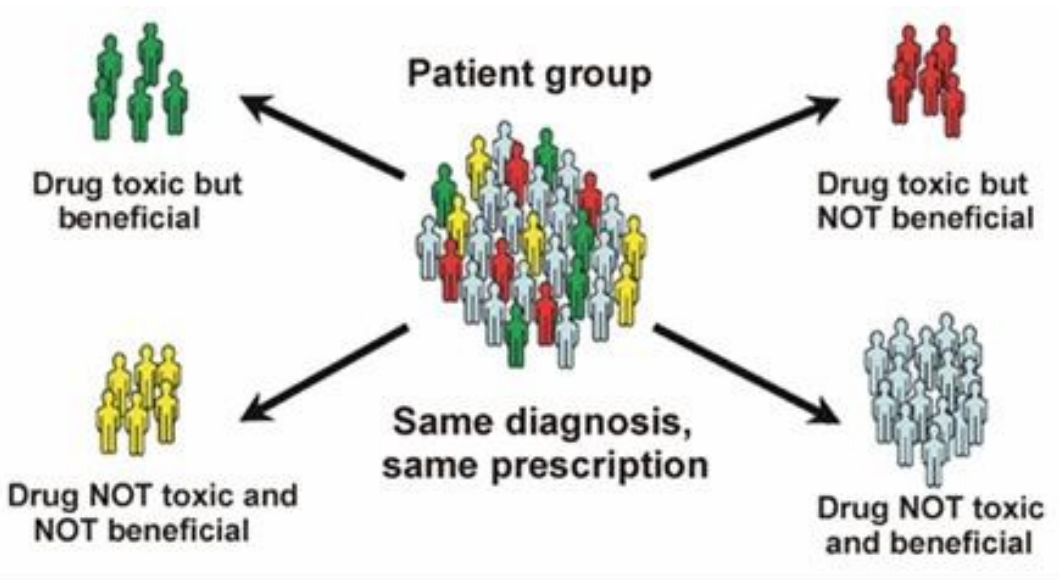
## European Science Foundation



**The ESF Forward Look Personalised Medicine for the European Citizen:  
Welcome to the Launch and Implementation event!**



# The promise of personalised medicine



- More effective medicines
- Safer medicines
- Cheaper medicines
- Better healthcare
- Cheaper healthcare
- Less (rather than more) healthcare disparity

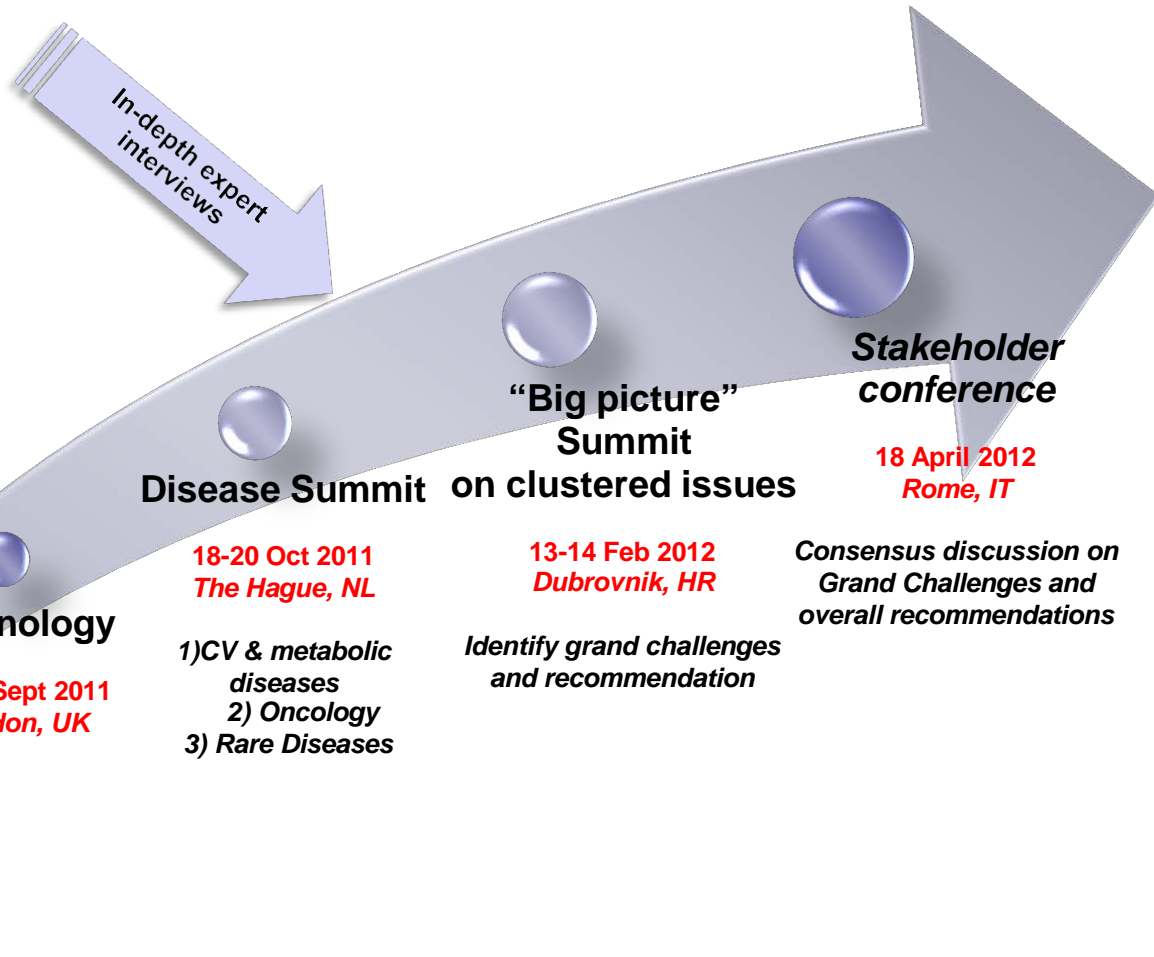




ESF Forward Look

## Personalised Medicine for the European Citizen

Towards more precise medicine for the diagnosis, treatment and prevention of disease (iPM)



**ESF Position Paper**

May 2011

# Forward Look on Personalised Medicine

*“At the heart of personalised medicine lies the individual citizen...”*

**PM  
Citizen  
Health**

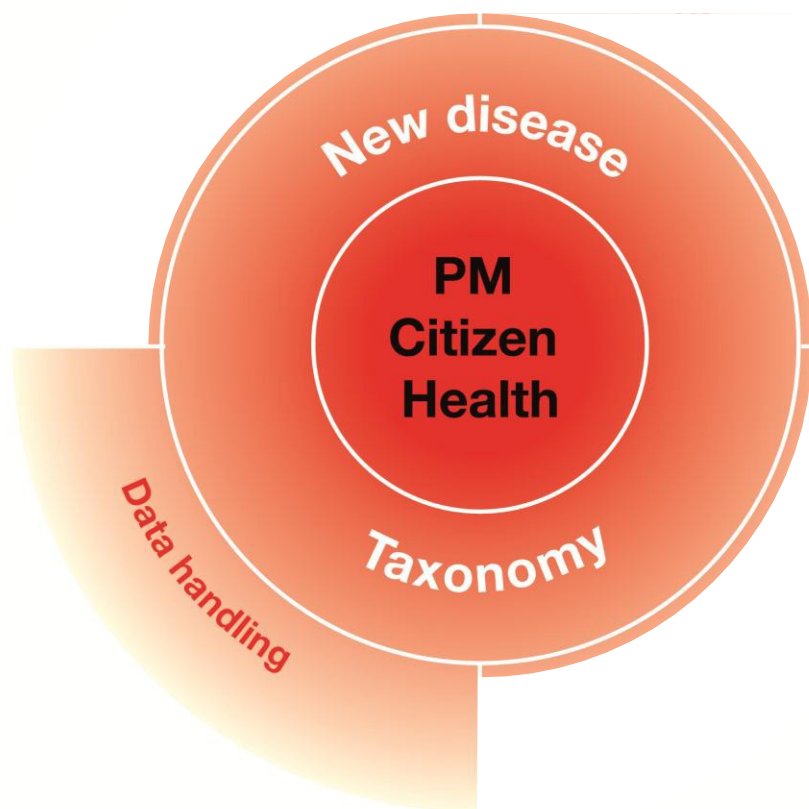
# Forward Look on Personalised Medicine



*“... the citizen’s health status will be reflected by a new disease taxonomy informed by the multi-layered characterisation of physiological and pathological processes”*

**Move from reactive to proactive, including include disease prevention.**

# Forward Look on Personalised Medicine



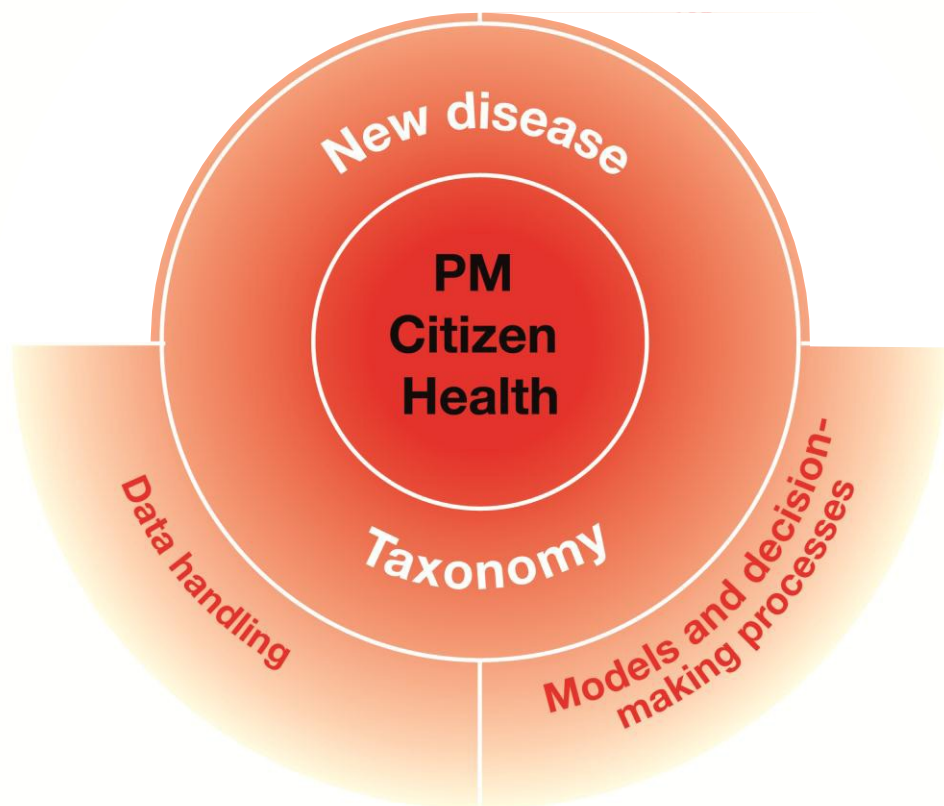
*“Comprehensive, accessible, and interoperable datasets must be generated to support the development of a new disease taxonomy and allow for its ongoing refinement and application”*



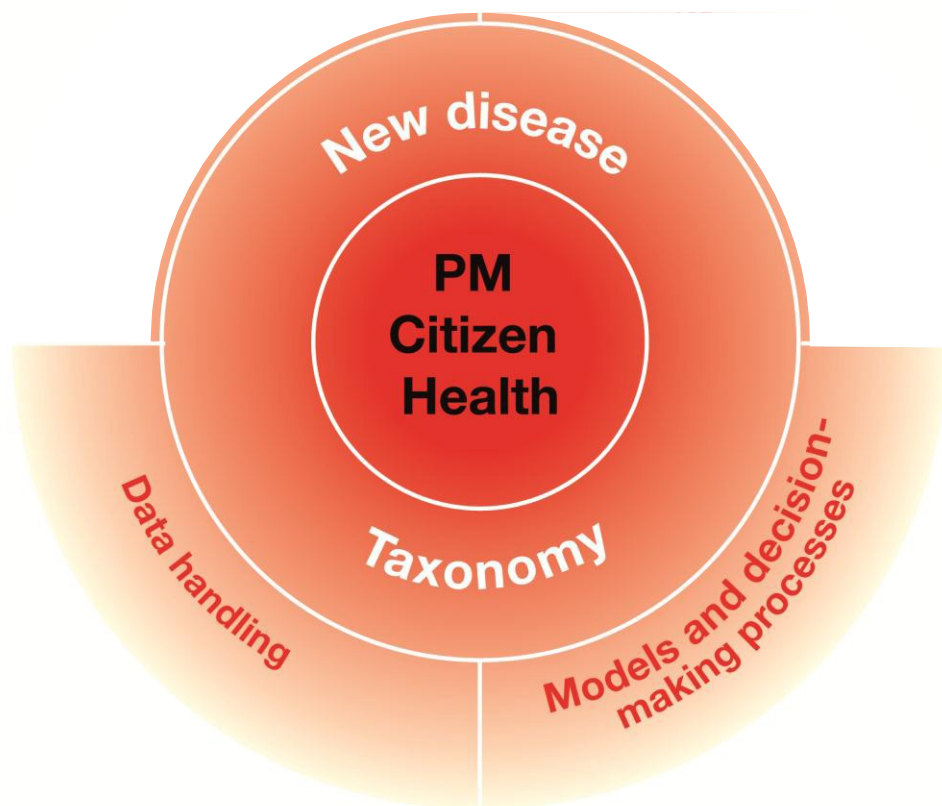
# Forward Look on Personalised Medicine

*“Models and decision- making processes must be revised to reflect a focus on the individual citizen at all levels, from assessment of the safety and efficacy of interventions, through HTA and reimbursement, to diagnosis, treatment and prevention”*

**New trial designs: n of 1, targeted populations, monitoring biomarkers, etc  
Regulators need to be engaged.**



# Forward Look on Personalised Medicine



*“Models and decision- making processes must be revised to reflect a focus on the individual citizen at all levels, from assessment of the safety and efficacy of interventions, through HTA and reimbursement, to diagnosis, treatment and prevention”*

**Creation of Europe-wide and wider networks.**

**Biomarkers including imaging linked to specific phenotypes, altered drug development.**



# Forward Look on Personalised Medicine

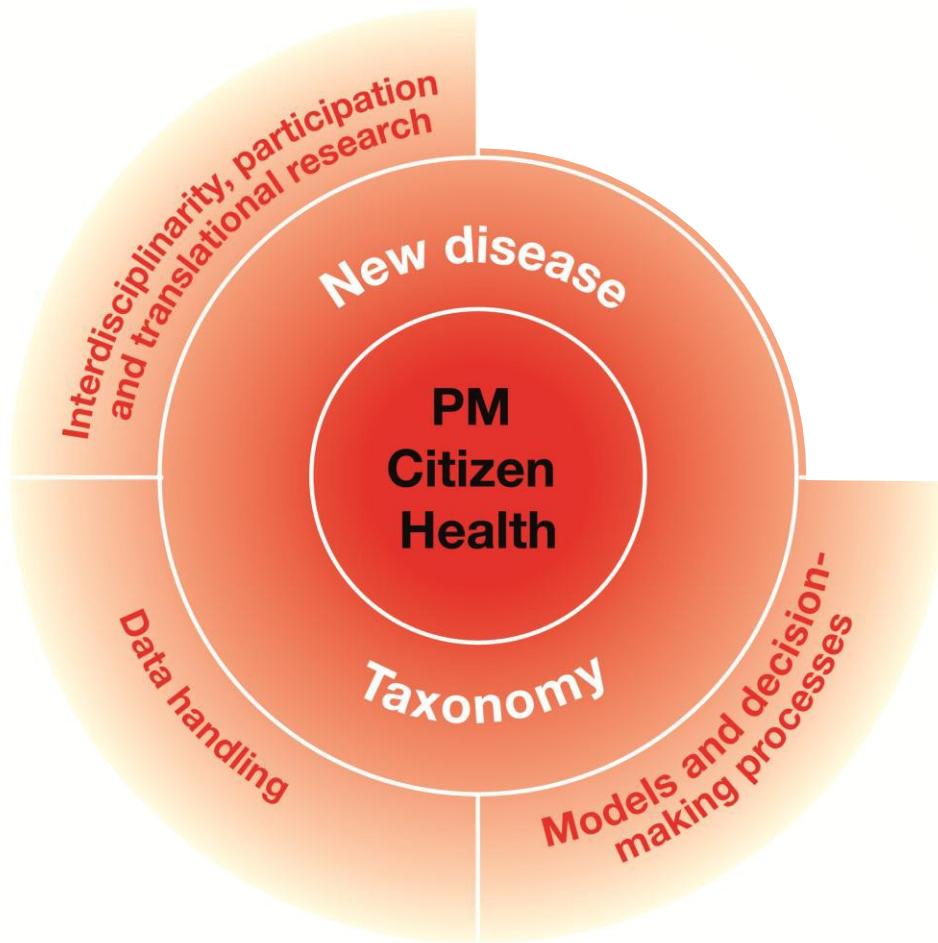


*“Emphasis must be placed on stakeholder participation, interdisciplinary interaction, public-private and precompetitive partnerships, and translational research in order to develop the frameworks that support the vision of personalised medicine and healthcare”*

Patient engagement.  
Importance of language. Avoid hyperbole. Avoid “victims”, “survivors”.

**Personalized Medicine is more than Genomic Medicine.**

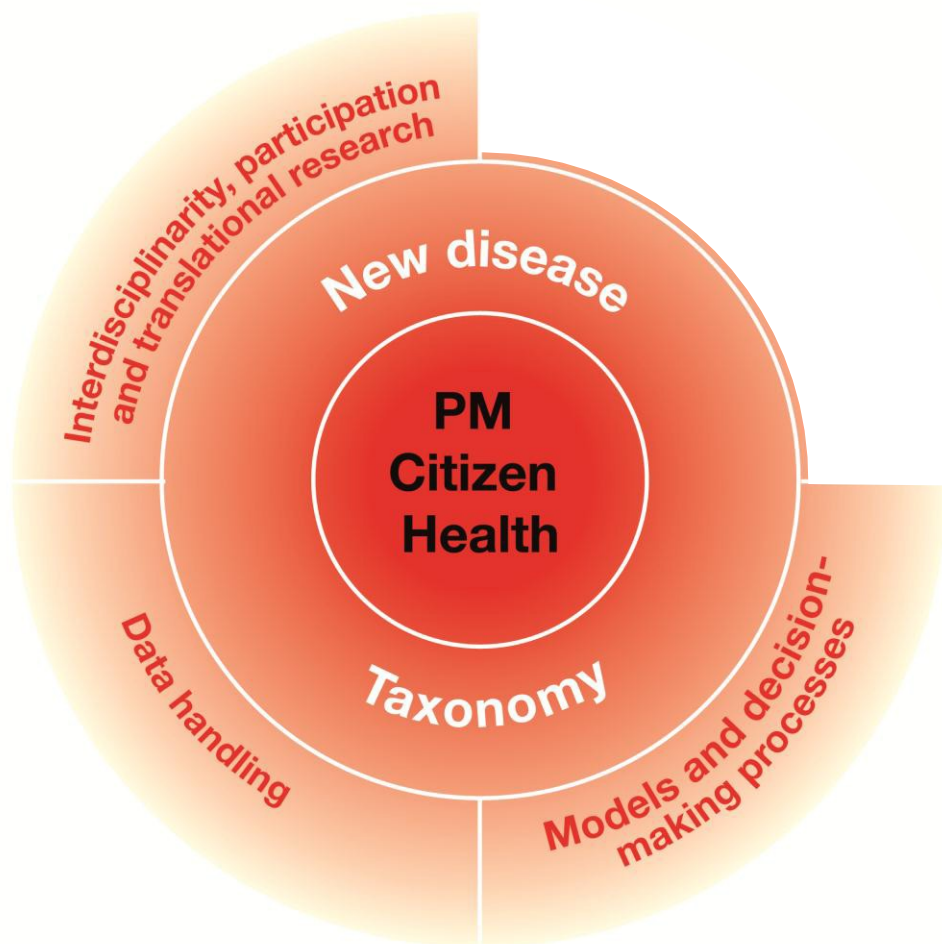
# Forward Look on Personalised Medicine



*“Emphasis must be placed on stakeholder participation, interdisciplinary interaction, public-private and precompetitive partnerships, and translational research in order to develop the frameworks that support the vision of personalised medicine and healthcare”*

Analogy of Google maps applied to information around patients: exposures, genome, microbiome, other patients, ....

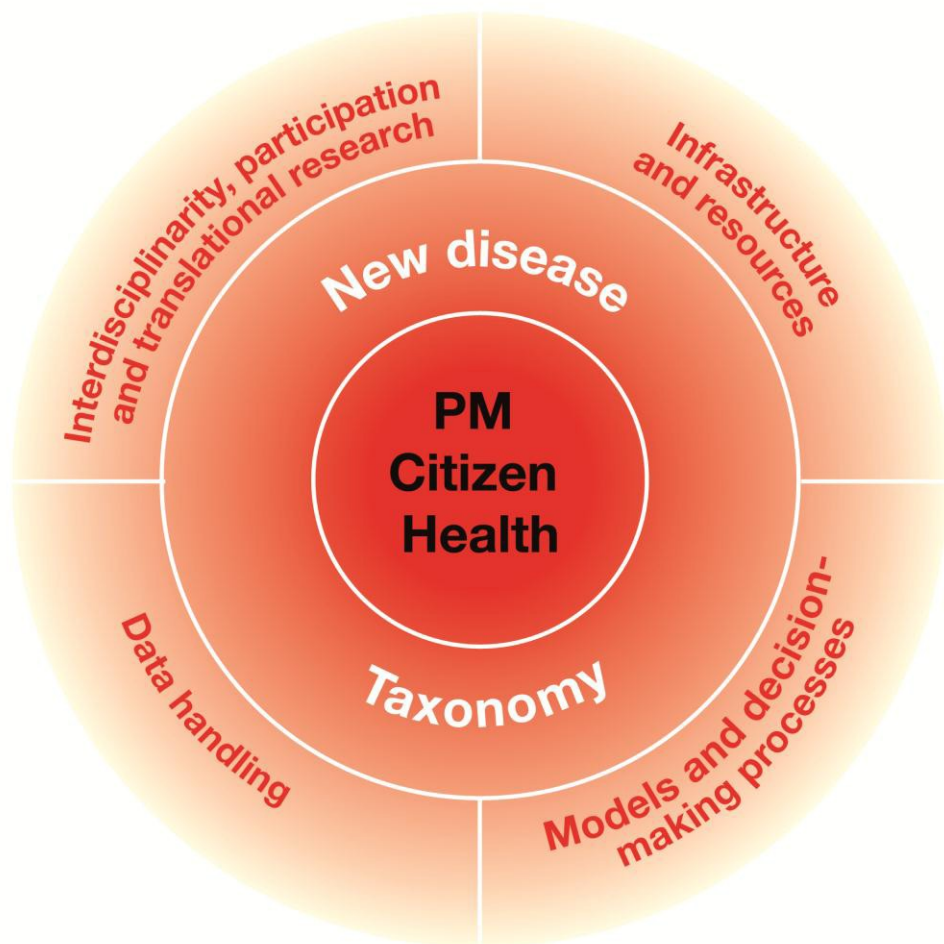
# Forward Look on Personalised Medicine



*“Emphasis must be placed on stakeholder participation, interdisciplinary interaction, public-private and precompetitive partnerships, and translational research in order to develop the frameworks that support the vision of personalised medicine and healthcare”*

Examples – IT tools to ensure f/u. Cloud sourcing what the best treatment might be, allow patients to have access to MD notes?

# Forward Look on Personalised Medicine

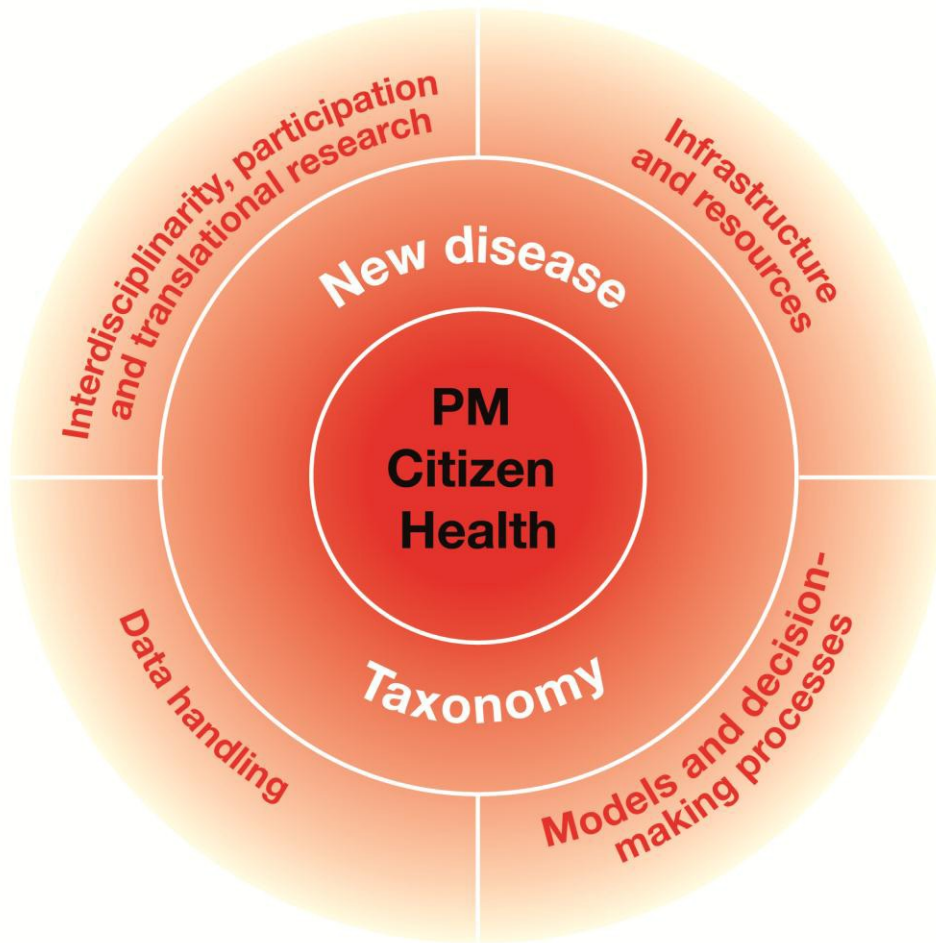


*“Dedicated funding and governmental support must be provided to ensure the availability of core infrastructure, including access to core technology and frameworks for education and training of professionals and the wider community”*

**EMR: data follow the patient. Especially an issue in Europe across borders  
Promote public-private partnerships.**



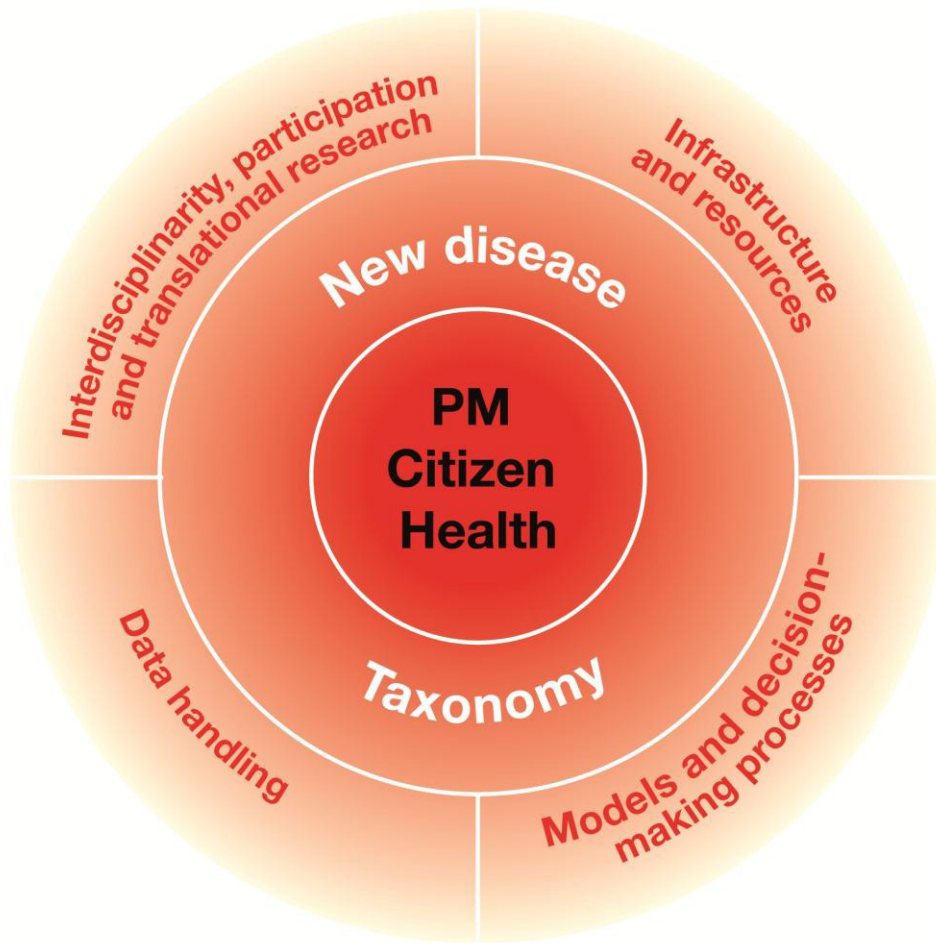
# Forward Look on Personalised Medicine



*“Dedicated funding and governmental support must be provided to ensure the availability of core infrastructure, including access to core technology and frameworks for education and training of professionals and the wider community”*

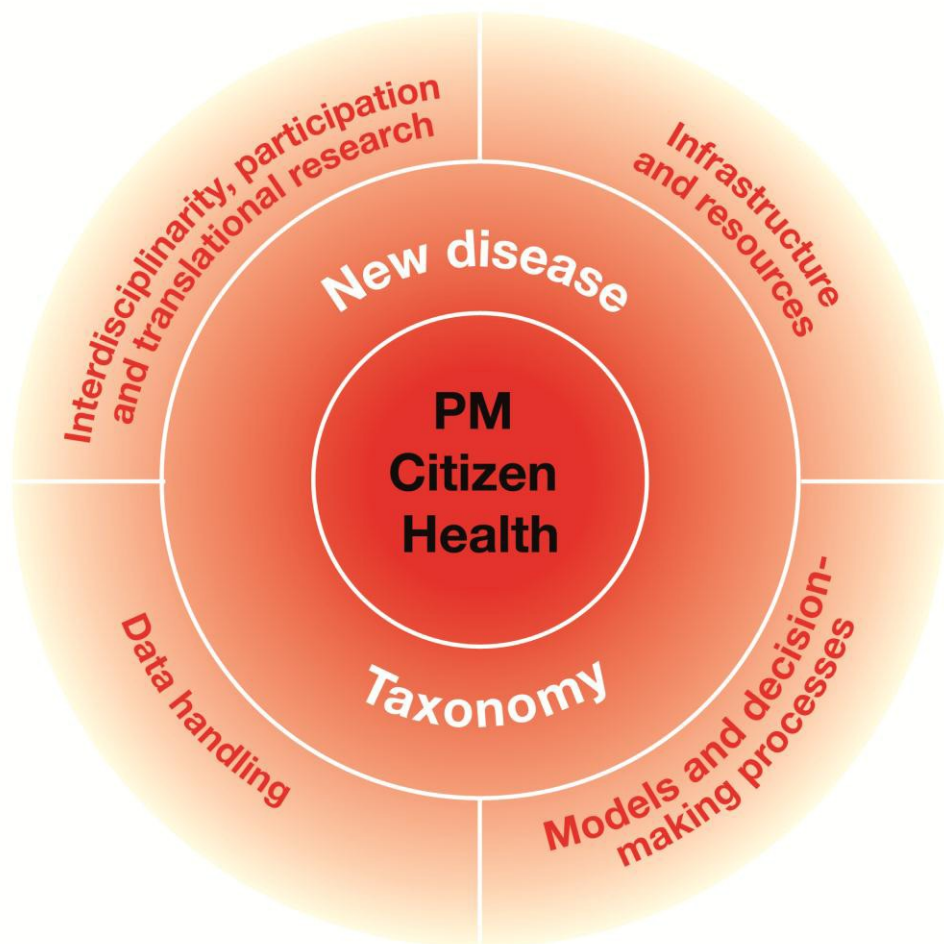
Patients have a right to manage their own data; controversial across the continent, e.g. not in Germany, Balance between individual use of data and contributing data to a greater commons.

# Forward Look on Personalised Medicine



*“Dedicated funding and governmental support must be provided to ensure the availability of core infrastructure, including access to core technology and frameworks for education and training of professionals and the wider community”*

Education also a central recommendation. Health care providers, public, ..  
Biology, IT, lifelong learning



**80**  
**recommendations**

# Personalised medicine: the time for action is now

- Rapidly emerging area with high potential for Europe
- Raising questions along the full innovation cycle
- Potentially great benefits for patients
- Potentially large economic impact across public and private sectors



"Take them until further testing shows they really aren't effective."





CIHR IRSC

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# Global Reach – Personalized Medicine

Rare Diseases

orphanet



Cancer



NATIONAL  
CANCER  
INSTITUTE



International Agency for Research on Cancer



Personalized  
Medicine



Canada

## **Break-out groups:**

How can we implement the recommendations?

### **1. Prioritize**

*What are the first steps?*

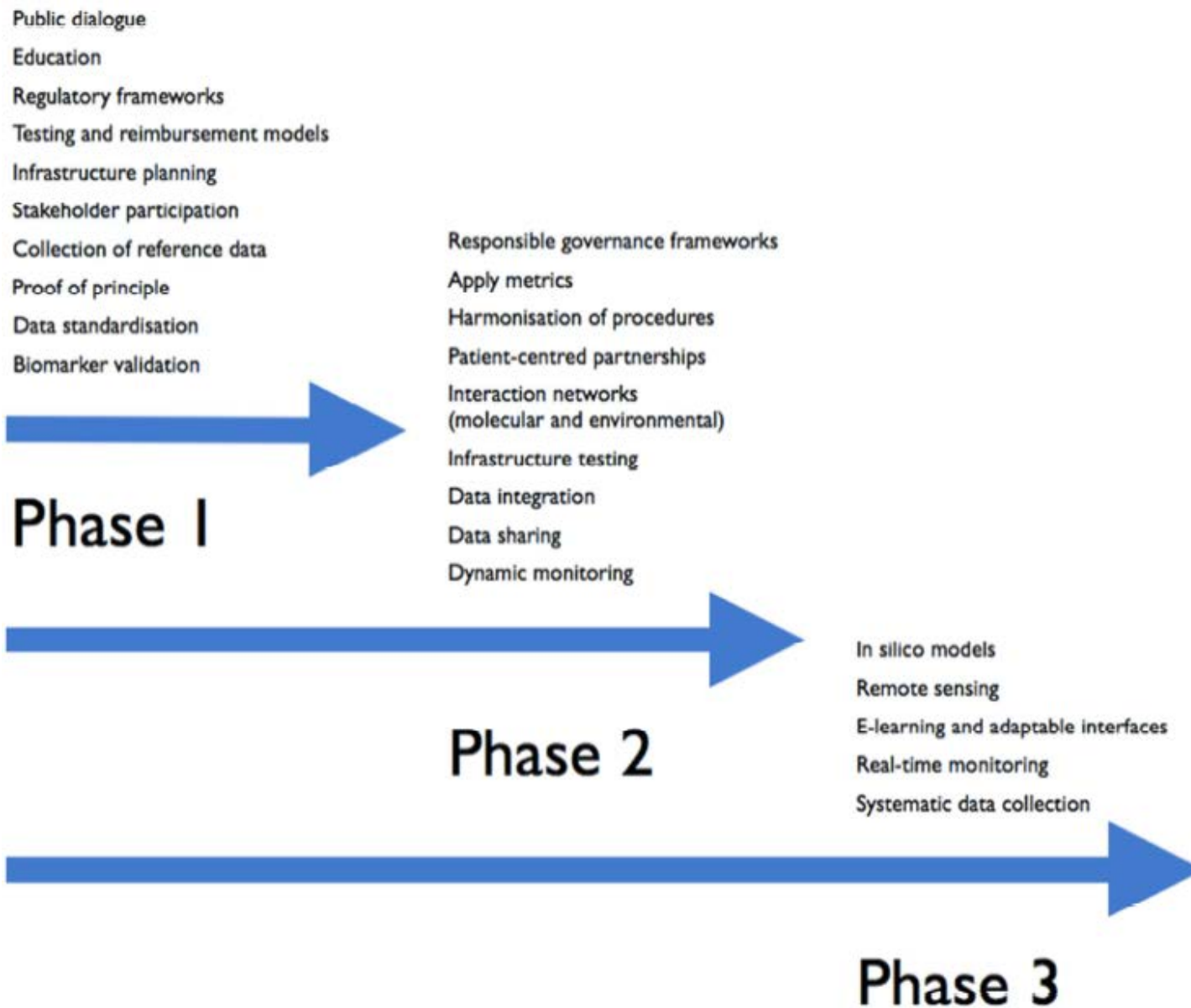
### **2. Stakeholders**

*Who will do it?*

### **3. Action points**

*Who does what?*

# Forward Look on Personalised Medicine





## IMPLEMENTATION PHASE

- Final Report publication
- Dissemination
  - Additional publications (scientific, policy, etc.)
  - COST Conference
- Launch and implementation event: Jan. 2013
  - Key stakeholders
  - Action plan
- Go global: OECD, NIH, FDA, CIHR, etc.
- Take over from ESF...