



What does the Innovative Medicines Initiative do to help patients with diabetes?

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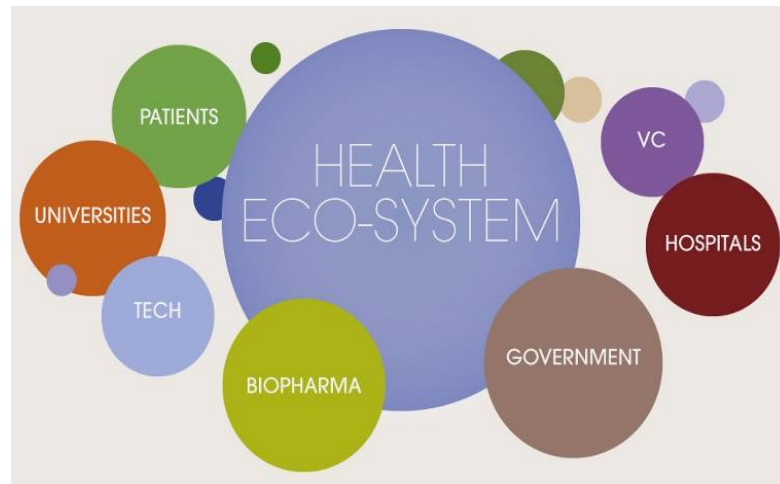
RHAPSODY industry coordinator
MD, Servier



European public-private partnership funding health research and innovation

IMI mission

IMI facilitates **open collaboration** in research to **advance the development** of, and **accelerate patient access** to, personalised medicines for the health and wellbeing of all, especially in areas of **unmet medical need**



We are an EU public-private partnership funding health research and innovation

€5.3bn
BUDGET

172
PROJECTS

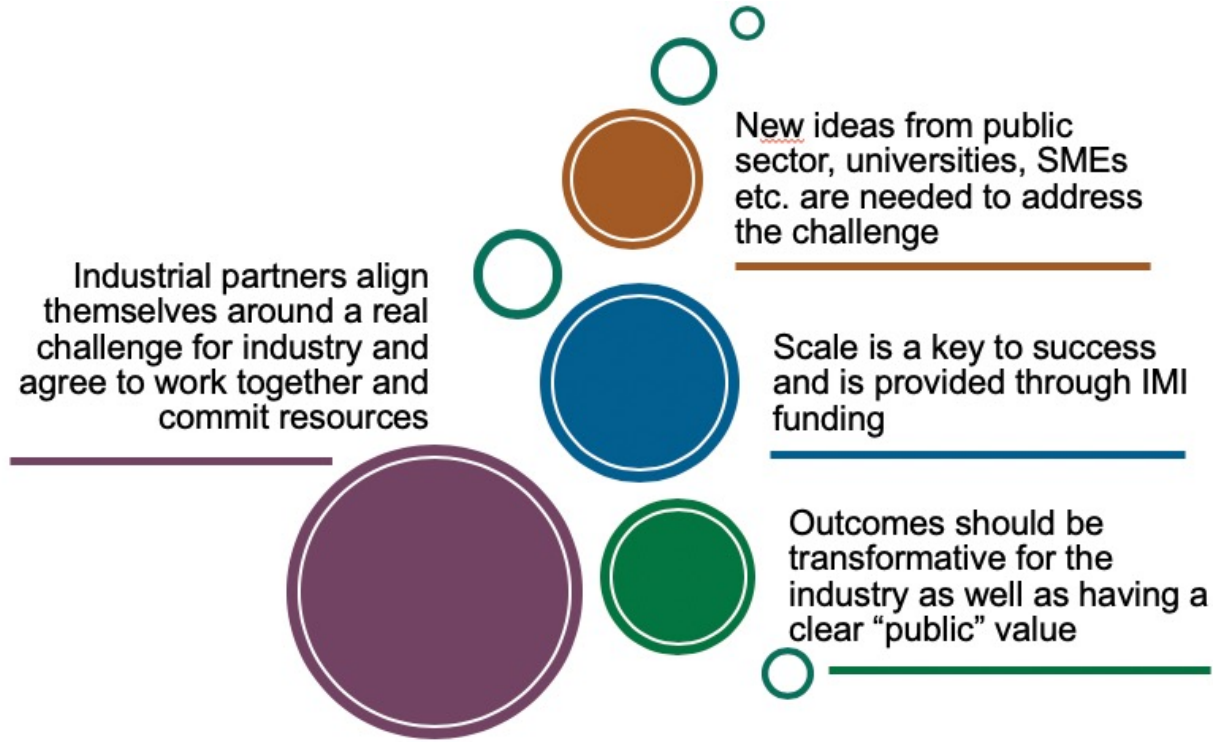
5 247
PARTICIPANTS

>7 000
PROJECT OUTPUTS

>3 800
PUBLICATIONS

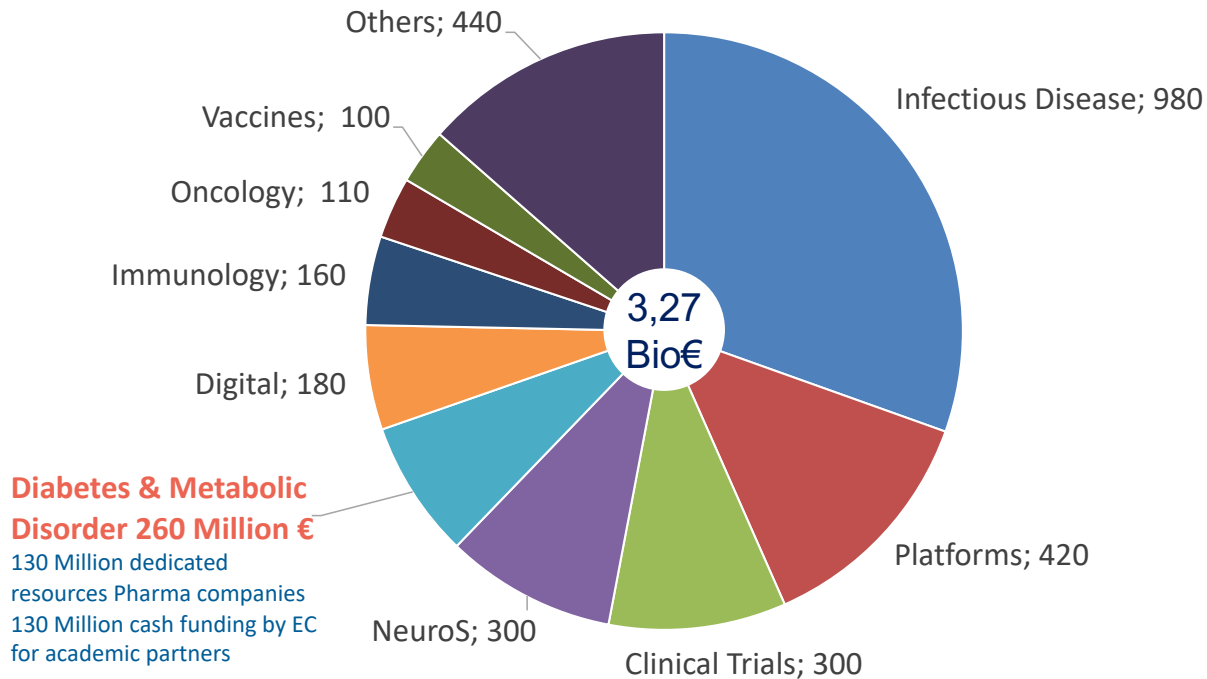


IMI Key Concepts



IMI budget for different project portfolios* in Million €

- 1,635 Million € provided by dedicated resources from the Pharma companies
- 1,635 Million € cash funding by the European Commission (EC) for academic partners



**Status mid 2019
– excluding projects in preparation*

The IMI Diabetes project portfolio addresses key issues of Diabetes / Metabolic Disorders

Pre-Diabetes

Overt Diabetes

Diabetic Complications



Improving beta-cell function and identification of diagnostic biomarkers For treatment monitoring in diabetes



Diabetes research on patient stratification



Assessing risk and progression of prediabetes and type 2 diabetes to enable disease modification



Hypoglycaemia - REdefining SOLUTIONs for better liVEs



Stratification of obese phenotypes to optimize future obesity therapy



Surrogate markers for micro- and macro-vascular hard endpoints for innovative diabetes tools



Biomarker enterprise to attack Diabetic Kidney Disease



Liver Investigation: Testing Marker Utility in Steatohepatitis



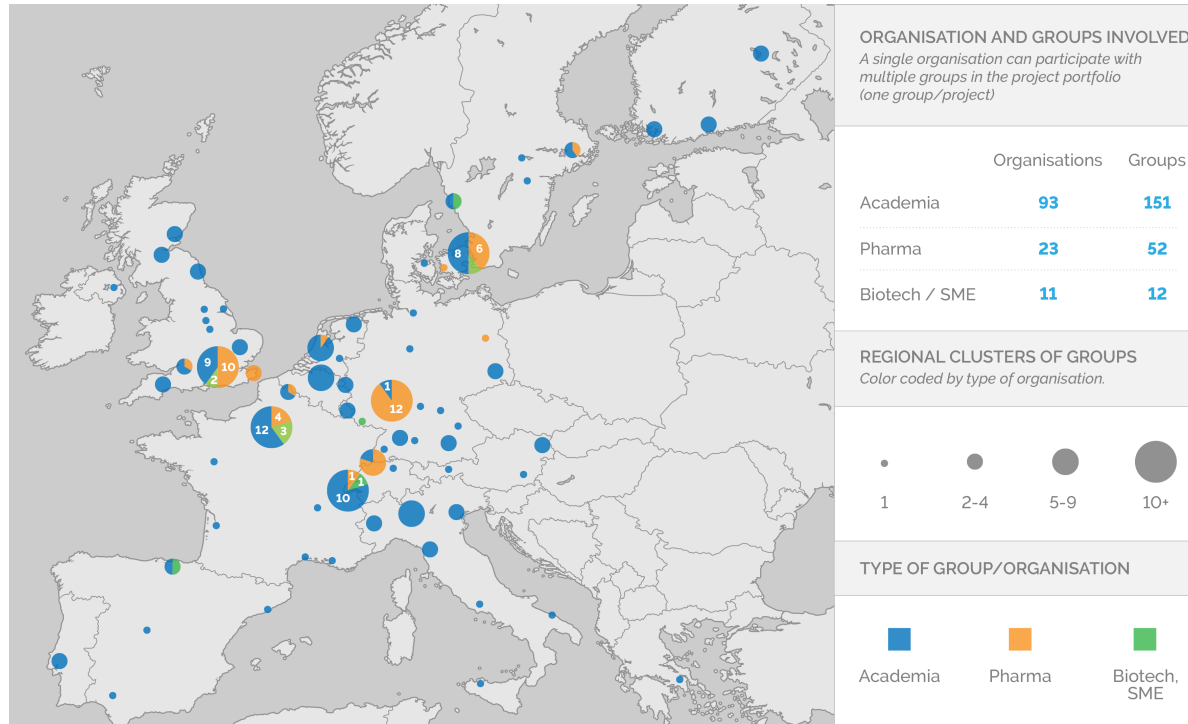
Cardiomyopathy in type 2 diabetes mellitus



Translational approaches to disease modifying therapy of type 1 diabetes (incl. INNODIA Harvest)







Type 1 Diabetes

The network of collaborators







**Note that these chart does not include the INNODIA participants*

Key points “Diabetes” Projects

Name	Status	Budget in Million €	Academic EFPIA Leaders	Key focus & deliverables
 European combined excellence in diabetes research	Finished (2010 – 2015)	27	Université de Lausanne (CH) Sanofi-Aventis (DE)	Human β -cell: biomarkers, toolkit to develop β -cell focused therapies
 DIABETES RESEARCH ON INTENSIVE TREATMENT	Finished (2012 – 2019)	46	Uni. Dundee (UK) Sanofi-Aventis (DE)	Type 2 diabetes patient stratification to determine best treatment options
Type 1 Diabetes 	Ongoing (incl. INNODIA Harvest) (2015 – 2023)	53	University of Leuven (B) Sanofi Aventis (DE)	Translational approaches to disease modifying therapy of type 1 diabetes:/ innovative approach towards understanding and arresting type 1 diabetes
 for precision therapy and prevention of diabetes	Ongoing (2016 – 2021)	19	Université de Lausanne (CH) Institut de Recherches Servier (FR)	Progression biomarker for prediabetes and type 2 diabetes
HYPO RESOLVE 	Ongoing (2018 – 2022)	27	University STICHTING Novo Nordisk	Clinically meaningful endpoints of hypoglycaemic episodes - Reducing the burden and consequences of hypoglycemia among people living with diabetes
 Stratification of Obese Phenotypes to Optimize Future Obesity Therapy	Ramping up (2020 – 2025)	17	University College Dublin Novo Nordisk	Define/characterise meaningful and relevant subgroups of obese population as premise for optimising future prevention and treatment of obesity and it's complications

Key points “Complications” Projects

Name	Status	Budget in Million €	Academic EFPIA Leaders	Key focus & deliverables
	Finished (2009 – 2015)	35	Lund University (SE) Boehringer Ingelheim (DE)	In-vivo models, biomarker candidates for late-stage micro- and macro-vascular complications of diabetes
	Ongoing (2016 – 2021)	30	Lund University (SE) Sanofi-Aventis (DE)	Delivering tools and knowledge to facilitate the development of new, personalised treatments for Diabetic Kidney Disease
	Ongoing (2017 – 2022)	46	University of Newcastle (UK) Pfizer (UK)	Biomarkers and preclinical models for NASH / NAFLD
	Ramping up (2019 – 2024)	13	INSERM (FR)	Assesment of uniqueness of diabetic cardiomyopathy

The fruits of collaboration synergies across projects

IMIDIA	SUMMIT	DIRECT
<ul style="list-style-type: none">• Human islet biobank, with genetic and omic data• Human beta-cell lines• Preclinical models of prediabetes• Biomarkers candidates• Integrated database	<ul style="list-style-type: none">• Largest GWAS on T2M and complications• Biomarkers candidates for disease progression	<ul style="list-style-type: none">• Extensively phenotyped prospective collection or prediabetes progression• Biomarkers of drugs response• Stratified clinical trials

RHAPSODY delivers

- **Federated database** with 10 nodes across Europe covering ~50.000 patients from 10 cohorts, with clinical, genetics, plasma omics data
- Generation of > **20 000** additional **plasma omics data**, including quantitative Peptidomics, Lipidomics and Metabolomics
- Established T2D progression model stratifying patients in **5 subgroups** with different disease progression and secondary complication development rates
- The **biggest human β -cell collection**
- **Biomarker candidates** of T2D progression: 4 protein candidates, 3 metabolites, several lipid species

Conclusions

- Innovative Medicine Initiative (IMI) is the **biggest public private** partnership in health care
- Within IMI a **cardio metabolic project portfolio** has been established with a budget of more than 300 Million € which is covering major areas of **unmet medical needs** tackled by the **tight collaboration** of leading clinical, academic and pharma groups
- These projects are in process of delivering key aspects to improve the life and treatment of diabetic patients

More about RHAPSODY as an IMI project?

- Watch out our video: <https://imi-rhapsody.eu>





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