The Open Revolution

We've been using old rules in a new world

It's time to change that

http://openrevolution.net

Rufus Pollock

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OPEN KNOWLEDGE

UNIVERSITY OF CAMBRIDGE

The

Open Revolution

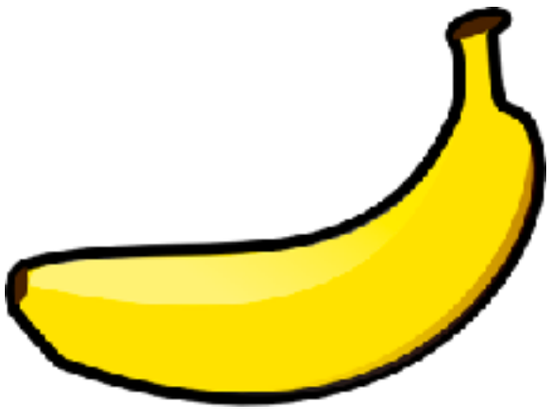
Rewriting the rules of the information age

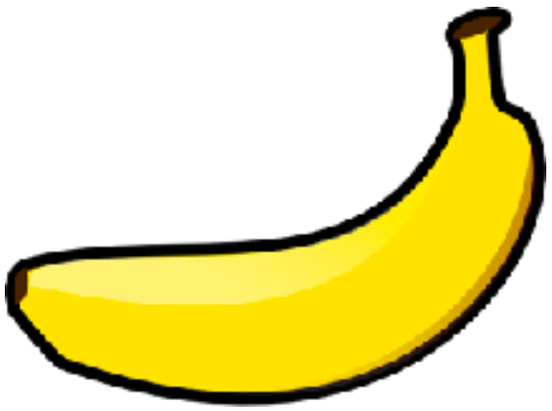
We're playing by old rules in a new world

It's time to change that

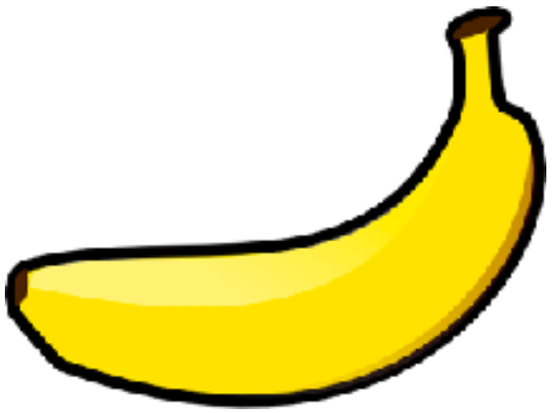
Rufus Pollock

What’s New?





In what way is this new and different?



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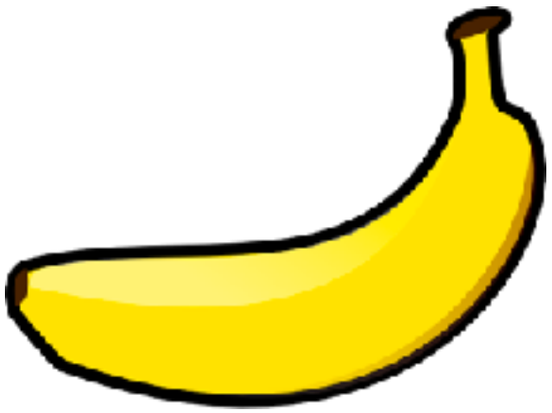
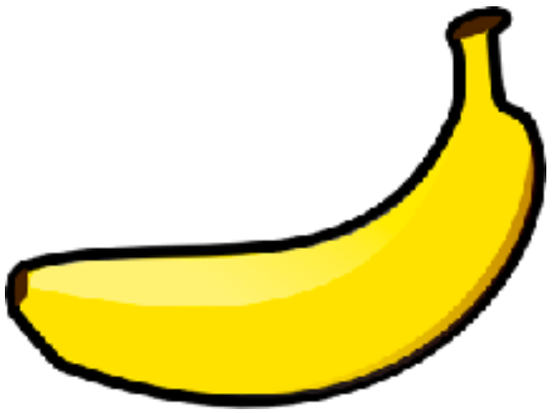


€1

€10m

€100m



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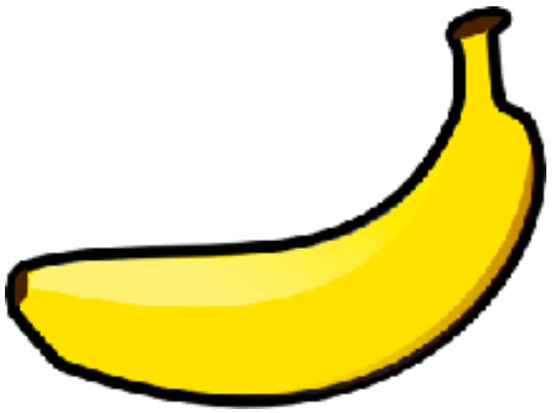

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Infinite Shareability

Movies are different from shoes - fundamentally

But we've been using old rules …

Property rights (for land)

=>

Intellectual property rights (for music)

We made a mistake: software/music/… are like land so we can use the same rules …

But they are <u>different</u> — infinite shareability

Intellectual property rights

=

Intellectual <u>monopoly</u> rights

Bad consequences

1. Stunted innovation, stagnating growth
2. Inequality and political instability
3. Corrupted culture

Mr Frisbee

Kronos effect

How do we avoid monopolies

and

pay for the “first copy”?

1. Make Information Open

Information is free to use, build on and share
Information = content software, algorithms, data

2. Pay Innovators & Creators

In an open-compatible way using remuneration rights to replace IP monopoly rights

2 options to pay innovators and be open

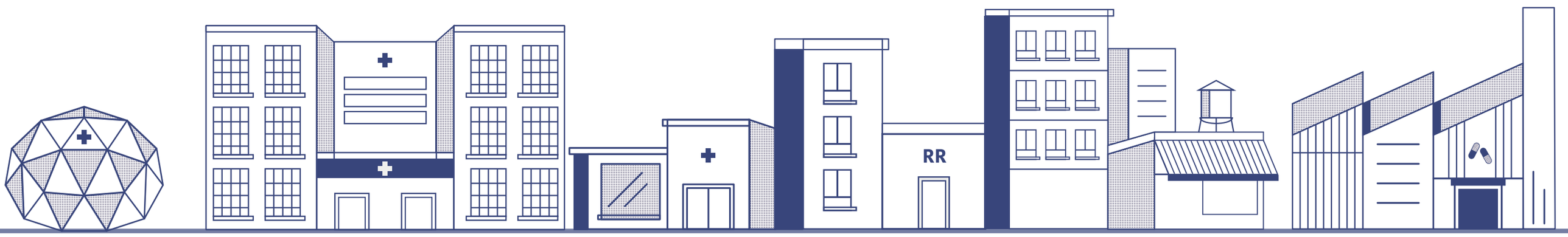
A. Direct public funding via grants
B. **Remuneration rights**

Remuneration Rights

iMed

*"Access **and** Innovation for Medicines"*

iMed: Innovating Medicines Entrepreneurship and Delivery



Today, millions of people around the world lack access to life-saving medicines because of high prices.

Health providers are in **crisis**, and have to make tough choices about what medicines they can afford to provide.

But we need high prices to pay for the investments to **create new**, innovative **medicines**.

Policymakers end up stuck in a dilemma:

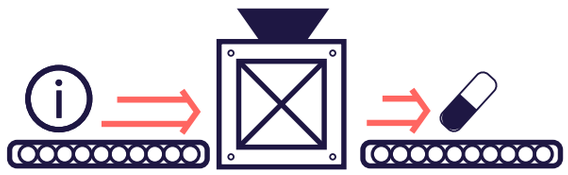
access **or** innovation

There is a solution that delivers both:

access **and** innovation

Today when we purchase a pill we are paying for two things:

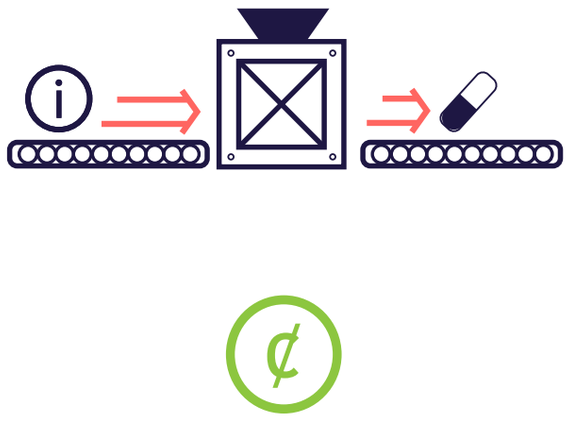
R&D **and** manufacture



One is expensive the other one is cheap:

A. The R&D behind the innovation can cost millions or even billions of dollars.

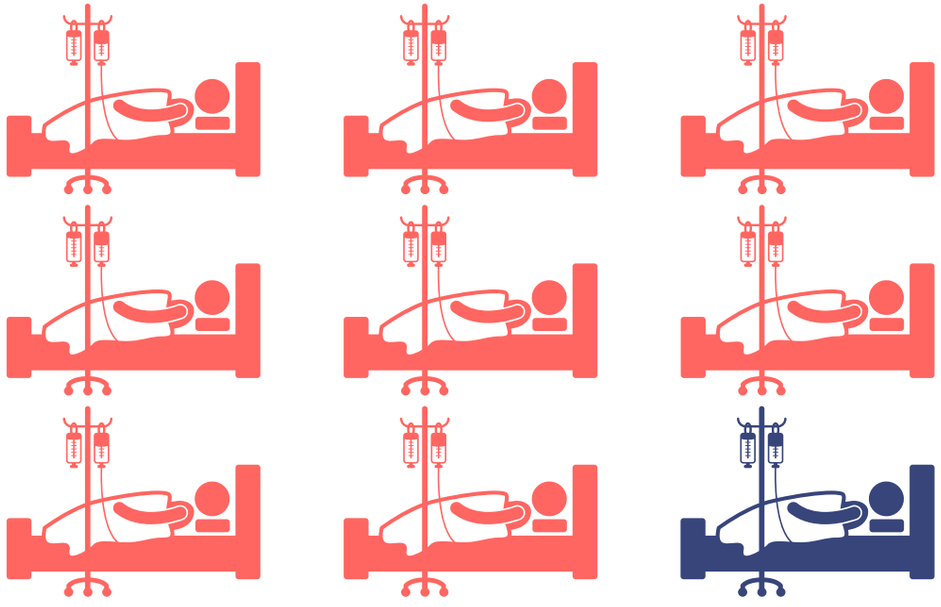
B. The manufacture of the medicine can cost as little as a few dollars.



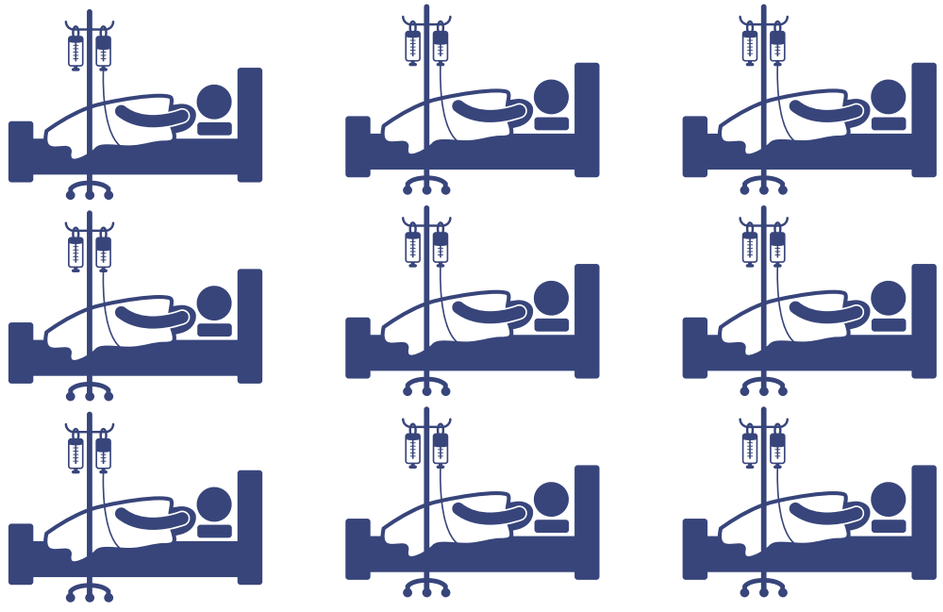
Today we pay for both in a single payment per treatment

Thus, when we buy a pill for $100
we will be paying 1% ($1) for manufacture
and 99% ($99) towards the R&D.

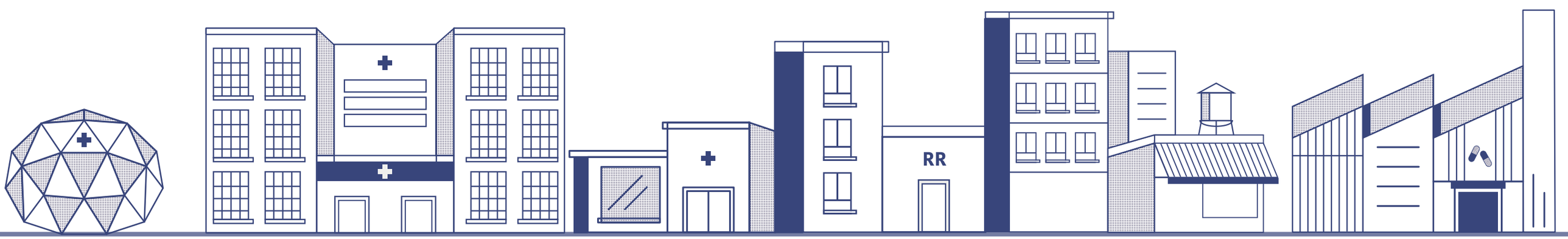
With the budget we have, the current payment model means we can only afford to treat a limited number of patients, because we pay for R&D every time we buy an individual treatment.



If we pay for R&D and manufacture separately we can pay for innovation **and** have greater access.



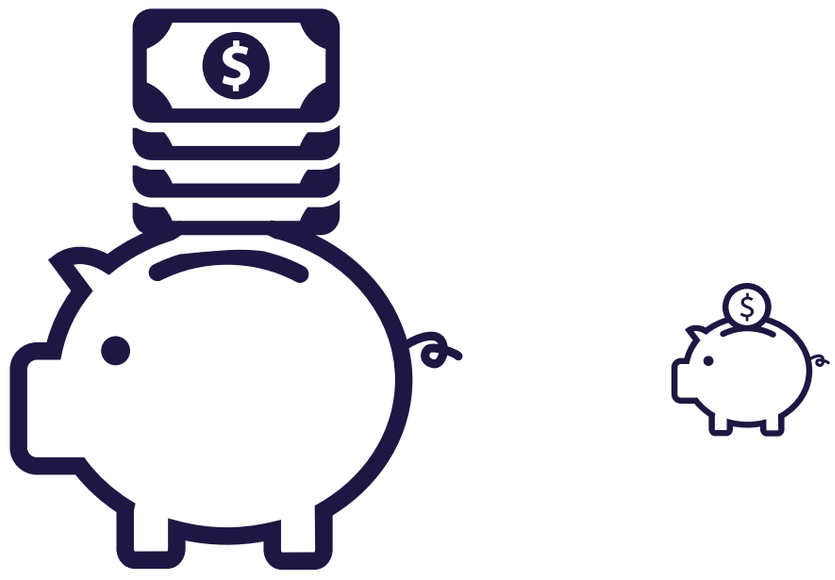
How does it work?



How does it work?

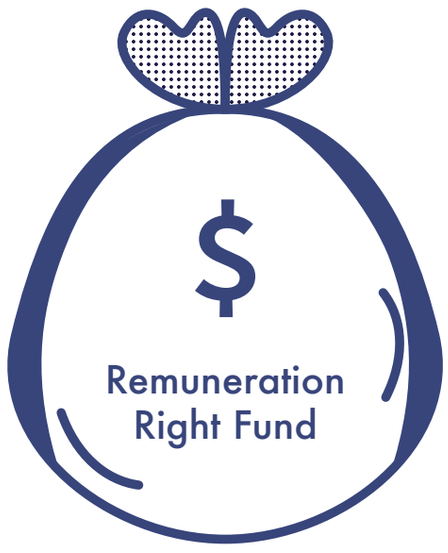
We create two payment streams:

- one to pay for the R&D
- one to pay for the manufacture



How does the R&D payment stream work?

To pay for R&D we create a Remuneration Rights Fund for medicines.



How does the Remuneration Rights Fund work?

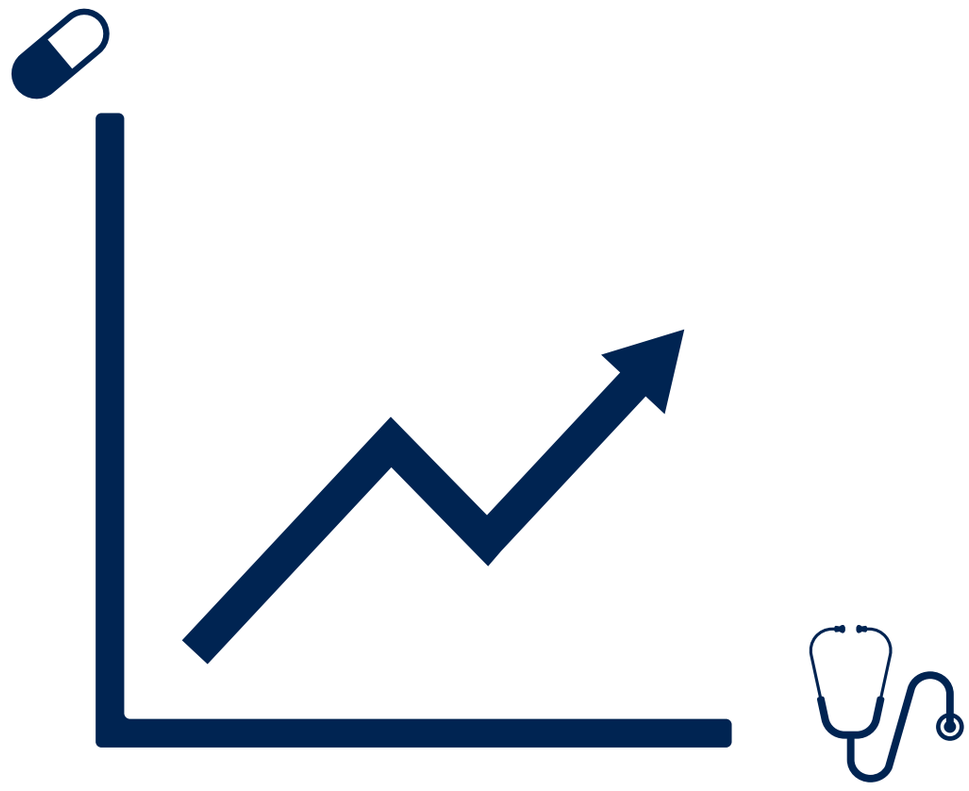
We each pay a fixed amount from our healthcare insurance or from our government healthcare into the Remuneration Rights Fund for medicines.

How do innovators get paid?

When a pharmaceutical company invents a new medicine they register for a Remuneration Right. This entitles them to get paid from the Remuneration Rights Fund.

How do innovators get paid?

The fund pays pharmaceutical companies based on the **health benefits** of its innovation.



How do we estimate health benefits?

The fund would be distributed based on the health benefits of each innovation, for example:

Health Benefits = (Number of people treated) **x** *(estimated benefit per patient)*

We can derive estimates of the number of people treated from aggregate pharmaceutical prescribing data that we already track. Benefit per patient can be derived from both pre-approval clinical trials and research, and, more importantly, tracking performance once in use via clinical trials and other monitoring. Pharmaceuticals go through clinical trials before they can be prescribed to demonstrate efficacy and safety. This would provide initial estimates of benefit per patient. Once in use, additional data would accumulate that would provide ever more accurate estimates of clinical effectiveness. Finally, many countries already have dedicated HTA agencies (health technology assessment) that do this kind of analysis in order to estimate the value for money of potential treatments.

How would it work for rare diseases?

We could address rare diseases by including a multiplier so that they get a higher total health benefit:

Health Benefits = (number of people treated) **x** (*estimated benefit per patient)*
x *(health prioritisation multiplier, for rare diseases)*

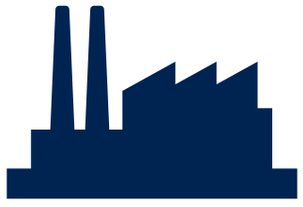
How do we technically distribute the money?

- A transparent pre-defined algorithm determines how to distribute monies in the Fund each year based on health benefits.
- Each innovator gets paid a share of the fund equal to the proportion of total health benefits due to their innovation.

The pre-definition of a transparent distribution mechanism means the fund is state-independent: the government's only role is to ensure the fund exists and is funded. Bureaucrats and policymakers will have no control over distribution of monies from the fund. Funds would be distributed on a regular e.g. annual basis based on estimated health benefit in the previous period (today most pharmaceuticals are only reimbursed after use so this would be little different, in fact innovators might well receive payment more promptly under this scheme than they do today).

Un-restricted access

In exchange for a Remuneration Right, **all R&D** has to be available **freely** to manufacturers and researchers to **use** and **build on**.



Medicines at low competitive prices

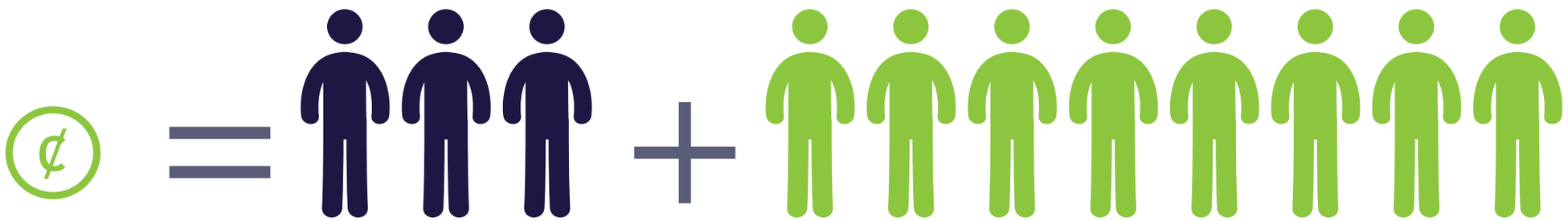
Now that R&D has its own separate stream of revenue, manufacturers don’t have to pay for a license to make the treatment.

Medicines at low competitive prices

This means they can manufacture high quality treatments without restriction which can be purchased by health care providers at low competitive prices, like generics today.

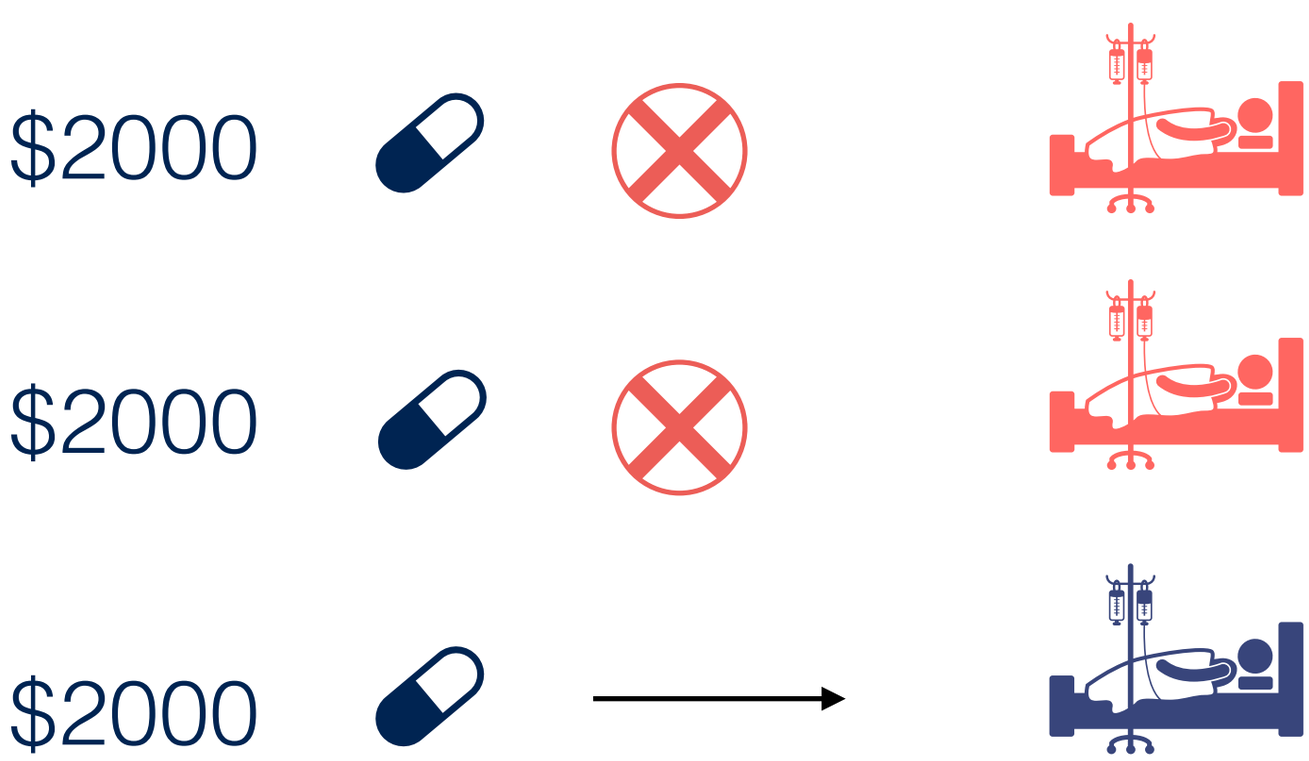
That means a lot more access

For a little bit more money we can get a lot more treatment!



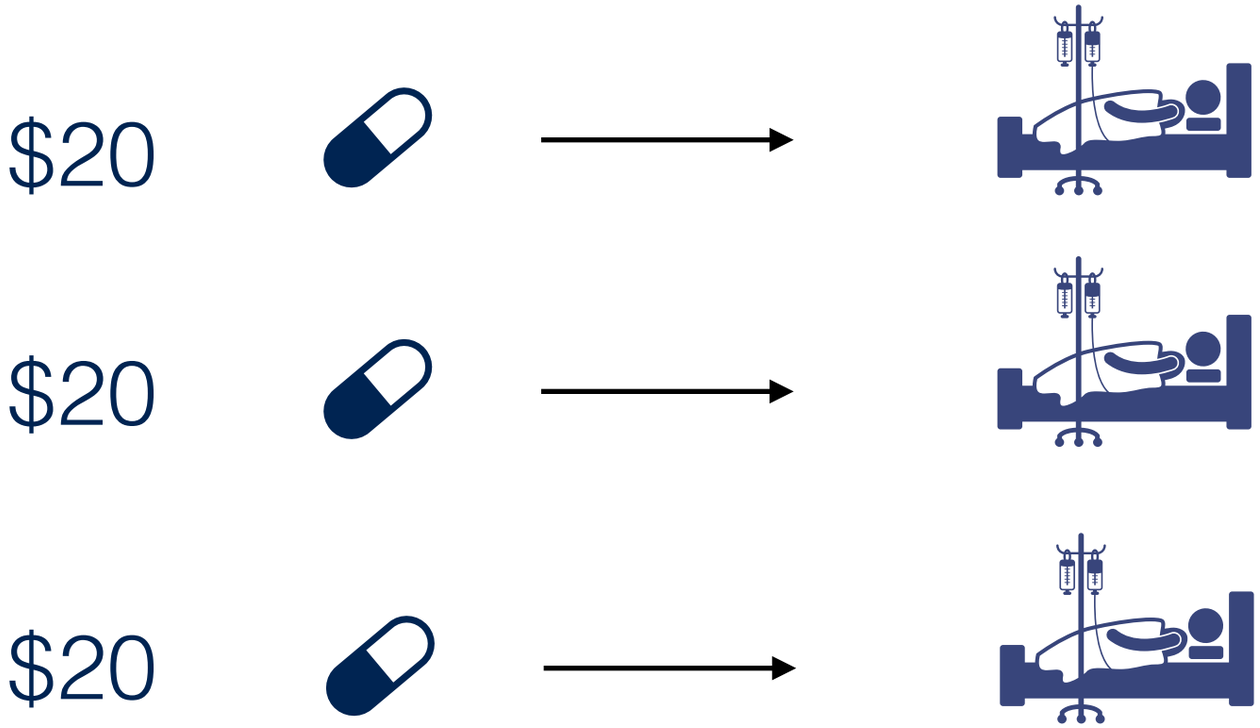
What is the difference with the past?

In the past only few people could afford the treatment because the one payment method had to cover both the cost of manufacture and the R&D in each treatment.

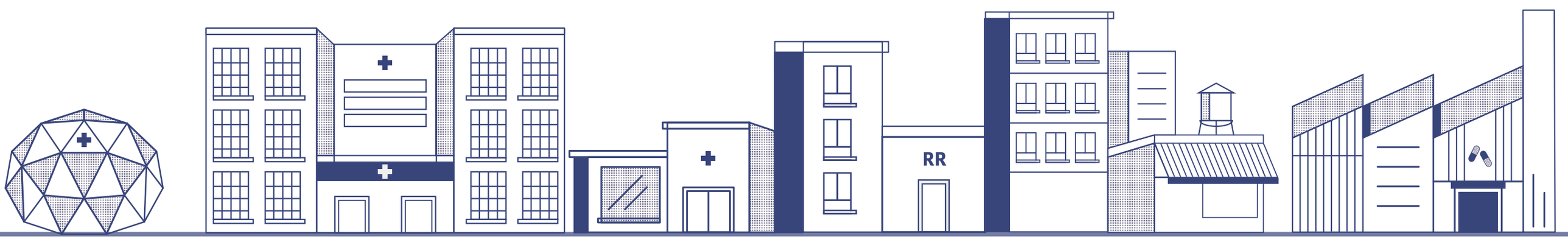


What are the benefits?

Now health care buyers, governments and insurers can afford to purchase many more treatments, because they only have to cover the cost of manufacture.



Conclusion



We can move from the current one payment stream to a two payments streams

The benefits will be:

- Increased access and affordability for medicines for millions of people

- An efficient and competitive market for manufacture and medical innovation

- Continued funding for medical R&D and and incentives pharmaceutical companies

- Increased access to information for researchers and innovators

We already have the capacity to make this happen:

- We already pay for R&D and manufacturing of medicines through our taxes and insurance.
- We already measure the use and benefits of medicine e.g. UK's National Institutional for Clinical Excellence (NICE)
- We already have the legal infrastructure to assign ownership in innovations

Summary I

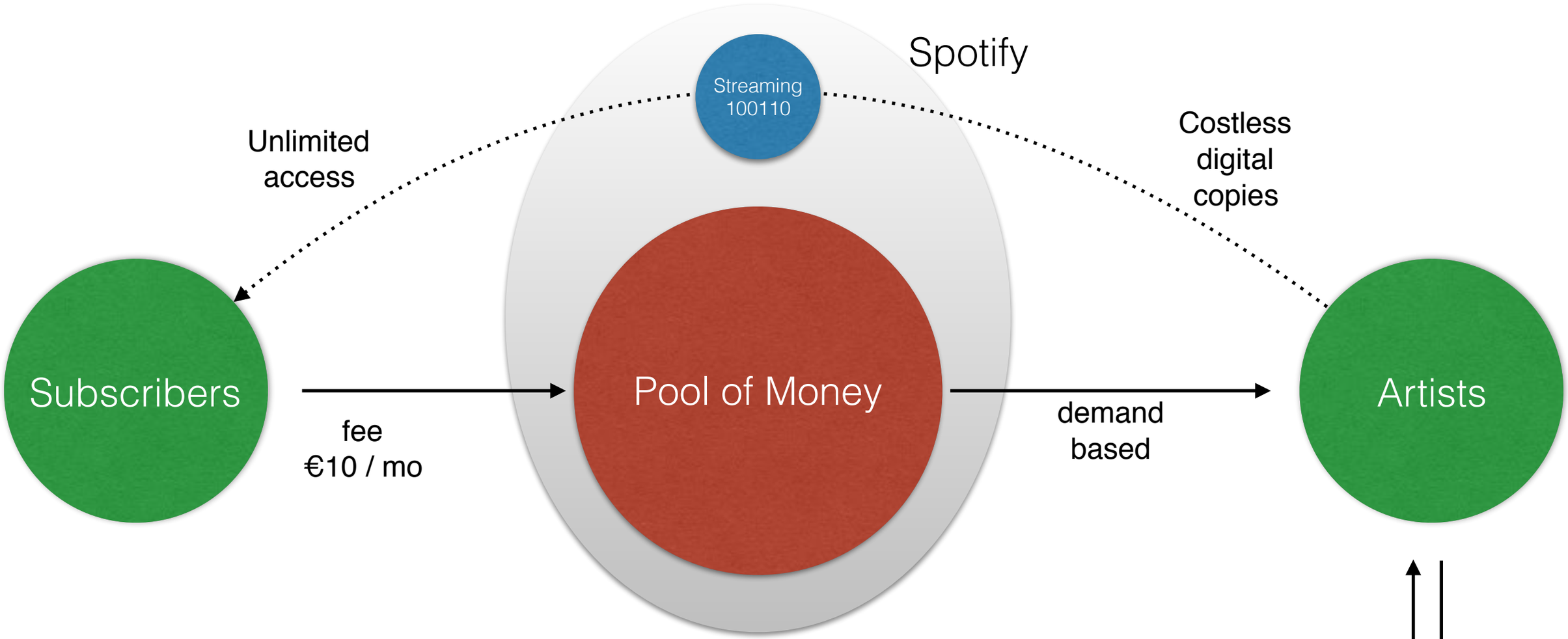
- Millions of people lack access to life-saving medicines because of high prices and health providers are in crisis.
- But high prices are needed to pay for the investments in the creation of new, innovative medicines.
- We end up stuck in a dilemma between access or innovation
- Actually we can have both — using remuneration rights!

Summary II

- The problem today is that we have one payment for both innovation and manufacturing
- What if we had two payment streams: one for innovation and one for manufacturing
- Innovation would have its own stream of revenue so manufacturers don’t need to pay for a license and they can produce medicines cheaply and competitively
- This increases access to treatment for patients and maintains the same amount of money for innovation
- Access and innovation can thrive together

Spotify

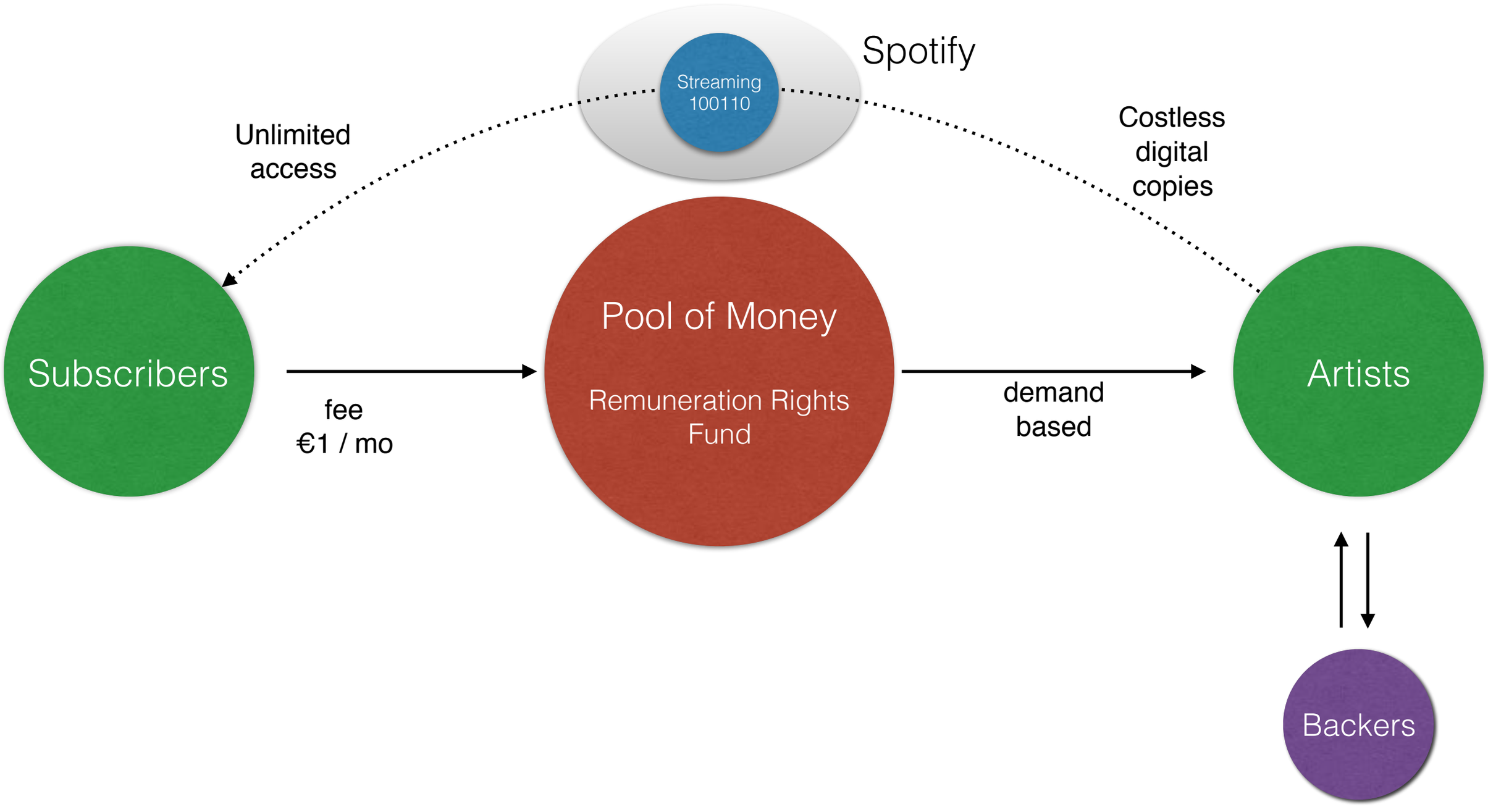
Existence proof of the model …



What's wrong with Spotify?

- Will only serve a minority of the market because consumers vary in ability / willingness to pay (better to charge 15% of users $10 a month than 100% of users $1 a month)
- Inefficiently ties together "collective licensing" and music distribution services.
- Incentives to impede and distort innovation in order to preserve market position
- Major potential for monopoly that exploits consumers and artists

OpenMusic


Spotify
Streaming
100110
Unlimited
access
Costless
digital
copies
Subscribers
fee
€1 / mo
Pool of Money
Remuneration Rights
Fund
demand
based
Artists
Backers

Conclusion

But we've been using old rules …

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Intellectual property rights (for music)

We made a mistake: software/music/… are like land so we can use the same rules …

But they are <u>different</u> — infinite shareability

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Bad consequences

1. Stunted innovation, stagnating growth
2. Inequality and political instability
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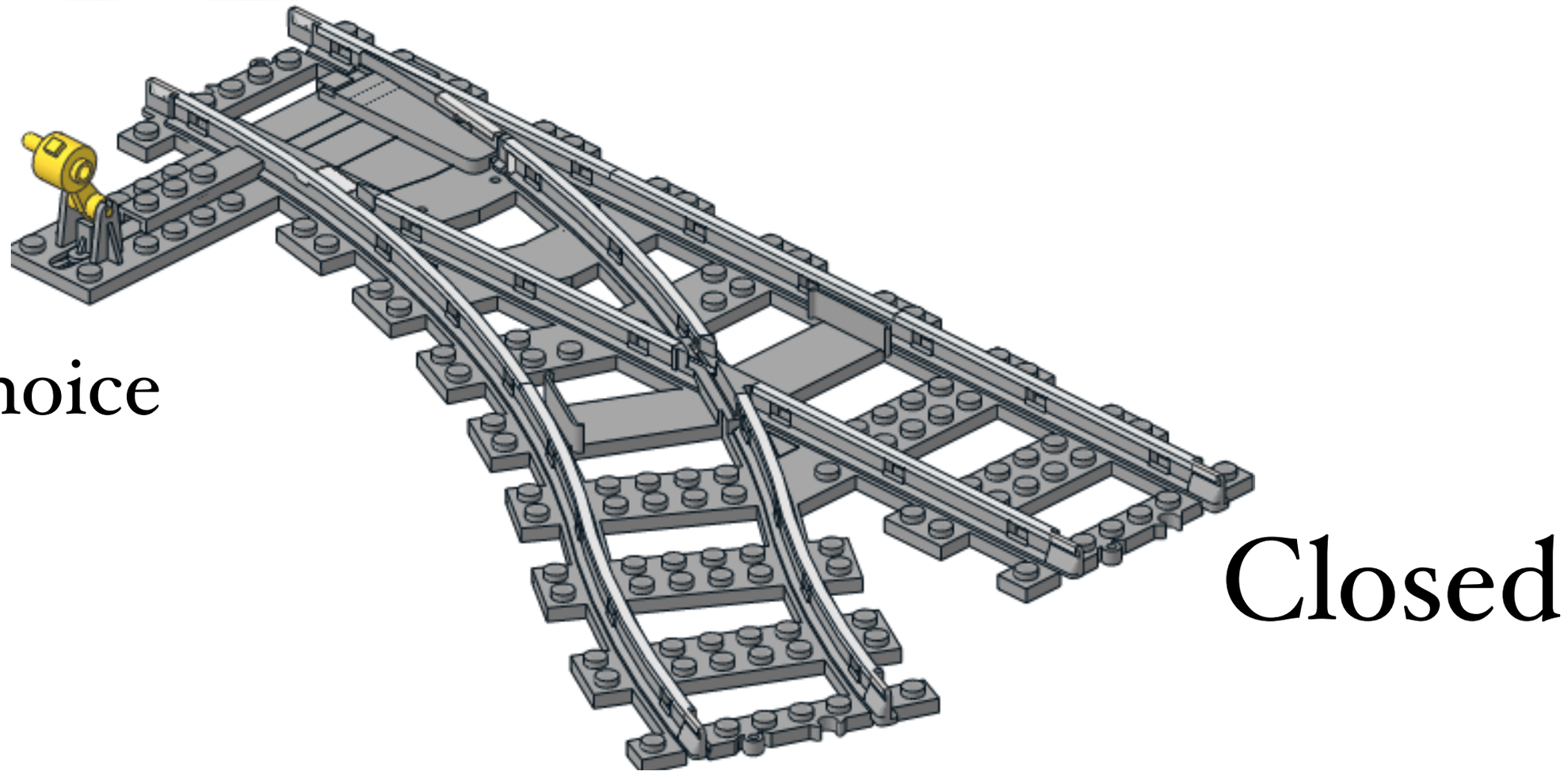
Info Age

Policy Choice



The Open Revolution

All digital information is Open

and

Innovators and creators are recognised and rewarded

All software, algorithms, content, data is Open
free for anyone to use, build on and share

Public funding continues and we place patents and copyrights with remuneration rights

We need to build a movement!

http://openrevolution.net/

https://opendata.ch + https://okfn.org/

The

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New Rules for a New World

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