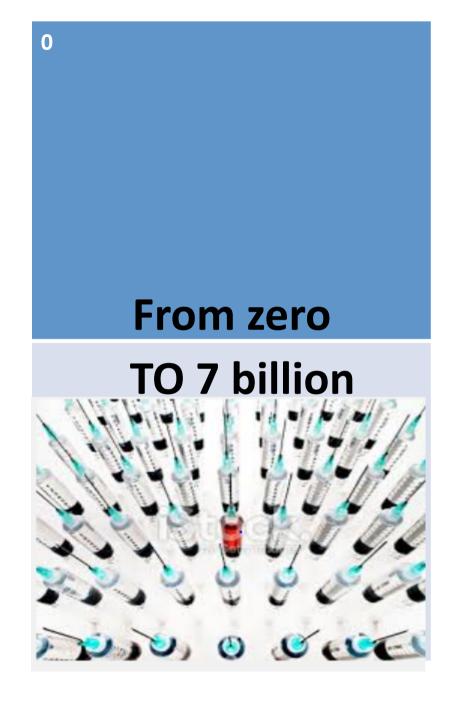
Auto disable syringes

How did we get from

Zero

to

7 Billion



#### Real need

0

Syringes were being reused

They were causing disease.

Threat to the people but also to the immunization program.

Anti-vaccine people would have something real to shout about .

This was not a solution looking for a problem





C

## Champion

People who could see the future.

People with drive who could see the solution

We had a resident genius

And we had another across the pond



O

# Know what you want.

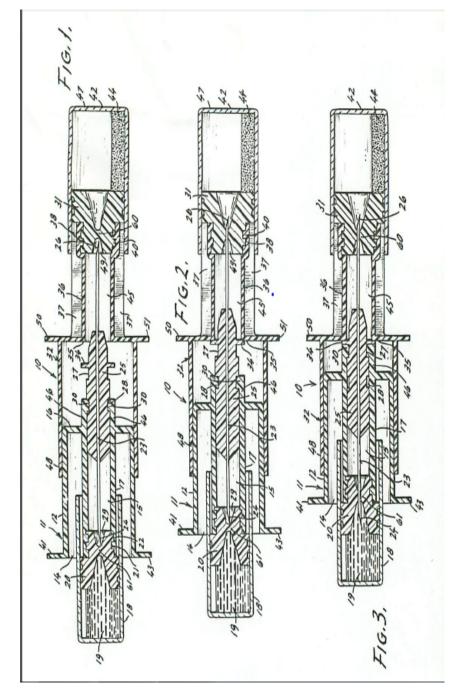
Keep it simple

Set specification

Establish criteria

Avoid a moving target

Do not sacrifice the good for the best



Do not expect solutions to come only from the established industry.

## Entrepreneur

95% of the more than 500 new syringe designs came from individuals, apparently with too much time on their hands.

Advertise to the public



First test in the laboratory

Tests, Trials and Standards

Finally test in the field.

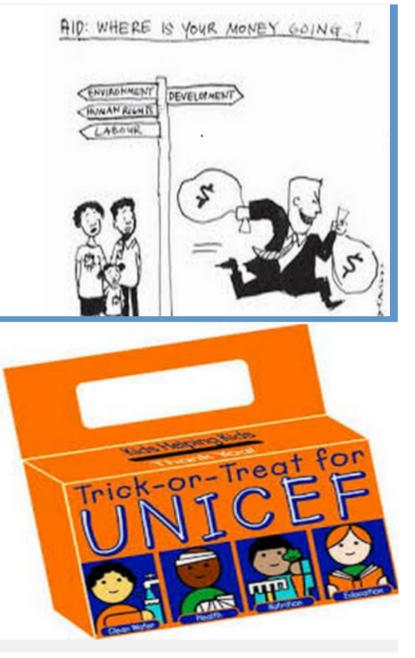
Must be no doubt concerning safety, effectiveness, ease of use and freedom from error



Lots of competition so early on spend the time to document cost and benefits

Sponsor with \$\$

Some one has to agree to pay, generously



Major investments in production require trust and high level vision

#### **Industry Investment**

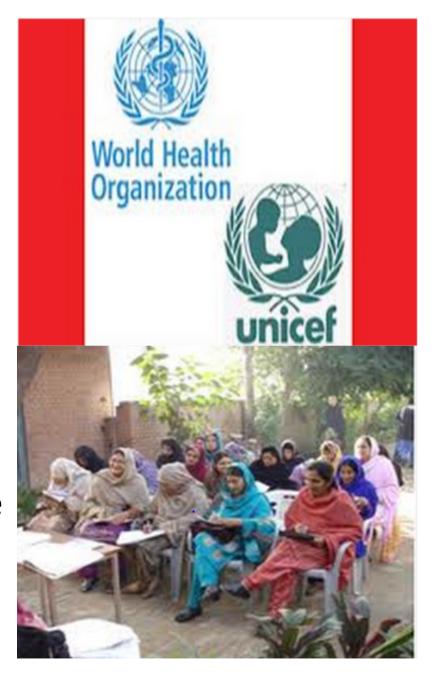
Involving industry in research is relatively easy



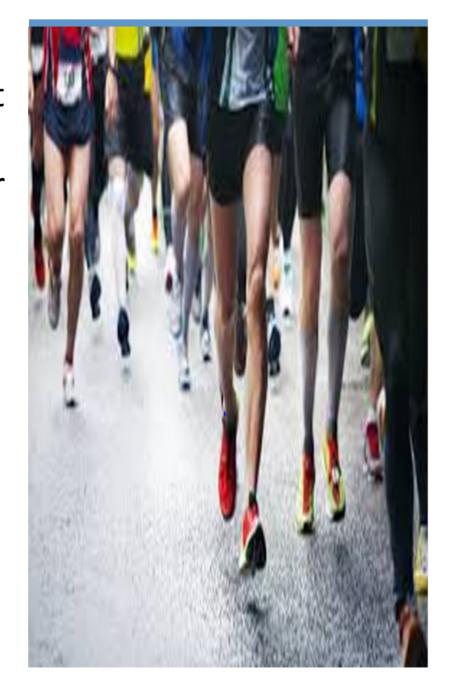
Must have institutional support.

# Champion Organization

Institution must contribute big introduction funds



Creation and introduction of a new technology is not a sprint but a marathon. Support must continue for years



Energy: long term.

Real need

O

Champion

Know what you want.

Entrepreneurs

Tests, Trials and Standards

Sponsor

Champion Organization

Industry Investment

Energy: long term

N C

