

2576-2

**5th Workshop on Entrepreneurship for Physicists and Engineers
from Developing Countries**

31 March – 24 April, 2014

Scientists and Engineers as Entrepreneurs

Dawood Parker
Melys AFS Ltd, UK.

Scientists and Engineers as Entrepreneurs

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ENTREPRENEURSHIP FOR SCIENTISTS AND ENGINEERS

Trieste, Italy

March 31-April 4, 2014



Entrepreneurship Workshop
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D. Parker: Scientists and
Engineers as Entrepreneurs



ARE INVENTORS BORN OR MADE?

It would be nice to think we could all be great inventors, but history says otherwise. Still, there's wide agreement that inventiveness is a quality that can be learned.

Yellow Inventiveness can be learned
White Inventiveness is inherited



MOTIVATION TO INVENT

It isn't about the money—or
at least not usually. Inventors
invent for many reasons.

LOVE OF
INVENTING



42%

NECESSITY



26%

SOCIAL
GOOD



13%

MAKING
MONEY



13%

FAME

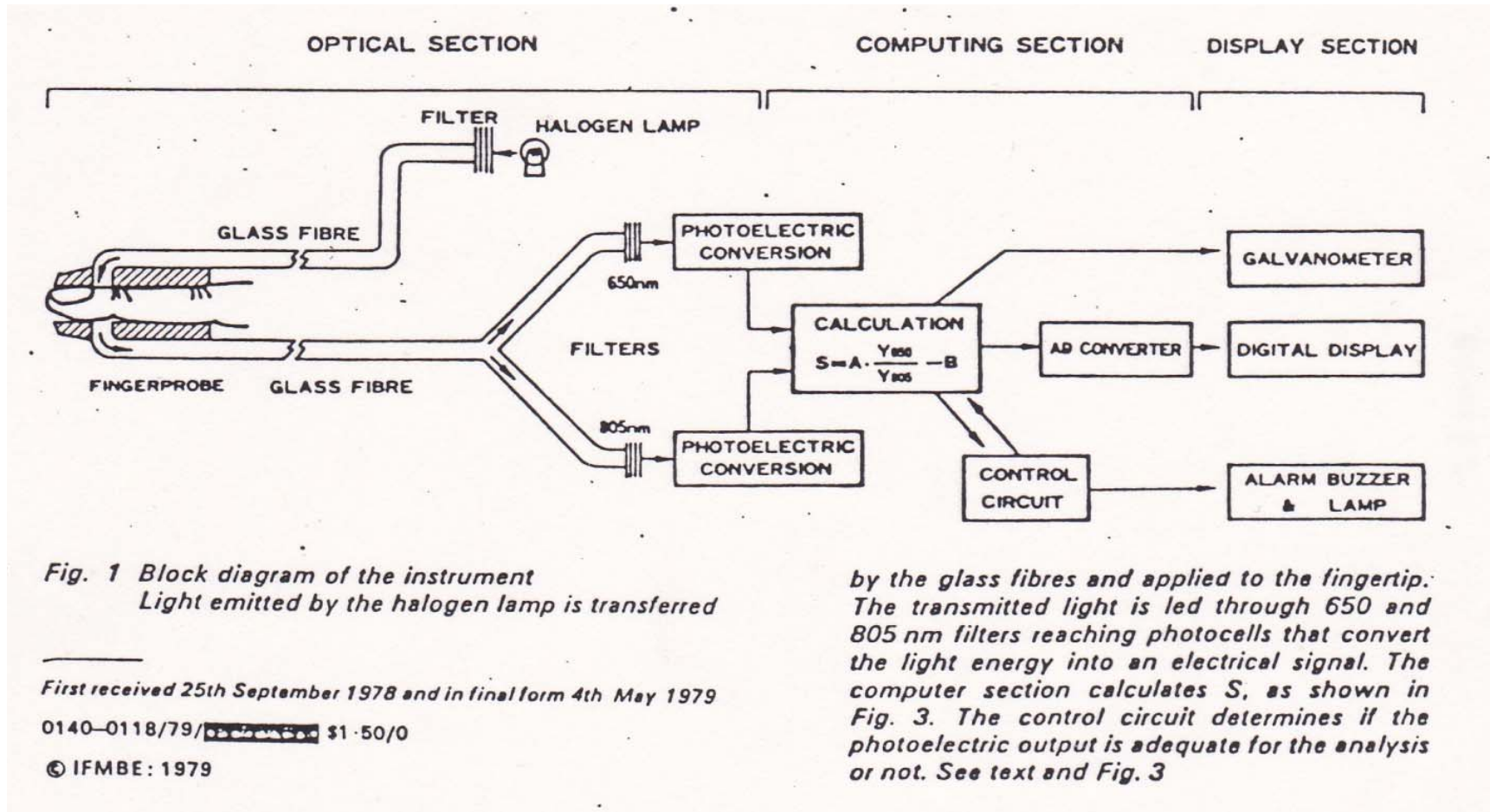


3%

Time Magazine, November 25, 2013

Do you need a new idea
to start a company?

Yoshiya I, Shimada Y, Tanaka K: Spectrophotometric monitoring of arterial oxygen saturation in the fingertip. Med Biol Eng Comput 1980; 18:27-32



Model 505 Pulse Oximeter



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Incomplete Data

- Scientists and engineers are used to making decisions based on complete data.
- An entrepreneur has to make the decision to start a company on incomplete data.

YOU HAVE TO TAKE A RISK.

Personality

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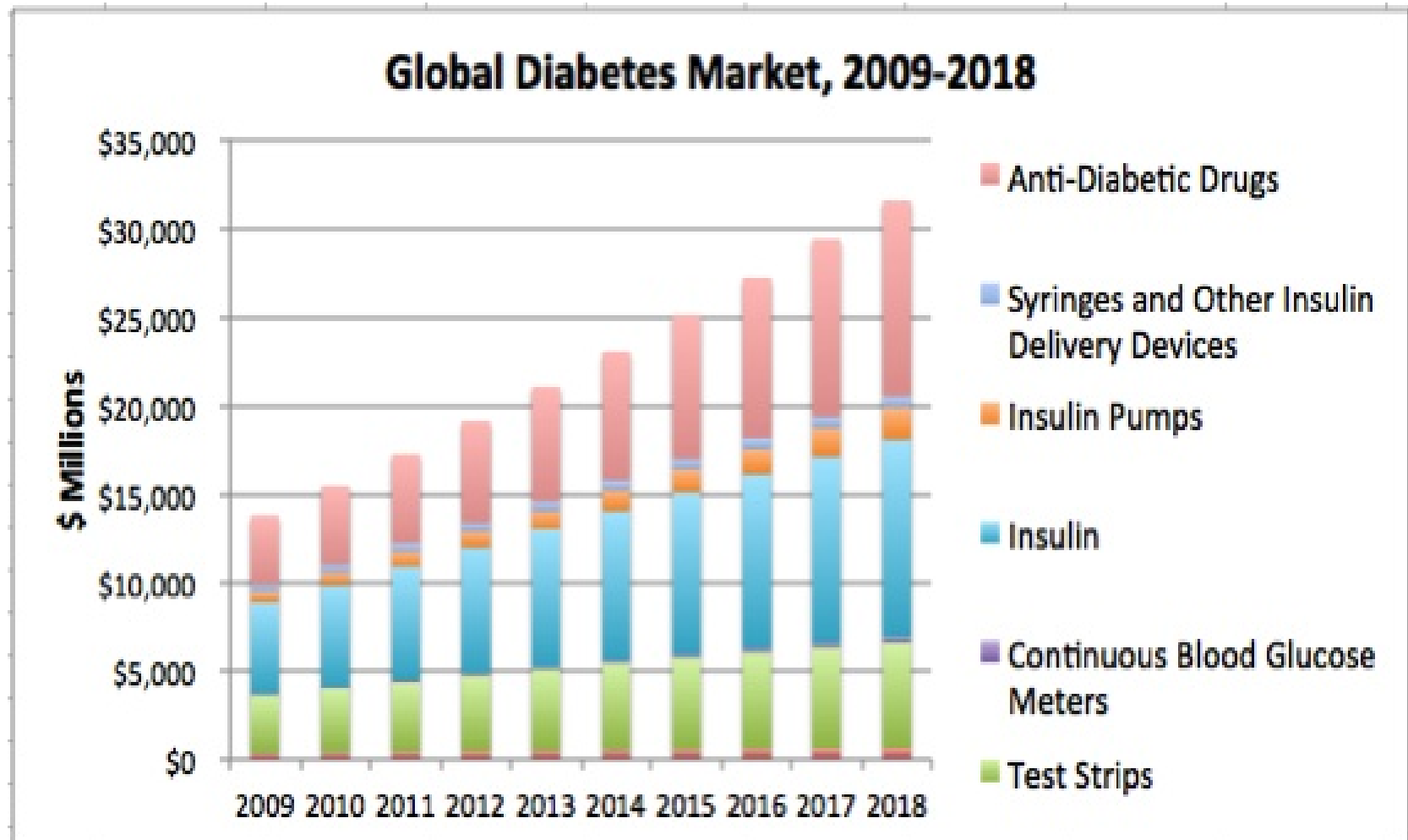
Ask yourself:

- Do I enjoy being in charge?
- Can I hire and fire others?
- Can I delegate work?
- Can I motivate people?
- Can I negotiate and compromise?
- Do you have the persistence to achieve your goal?

Great Business Opportunity?

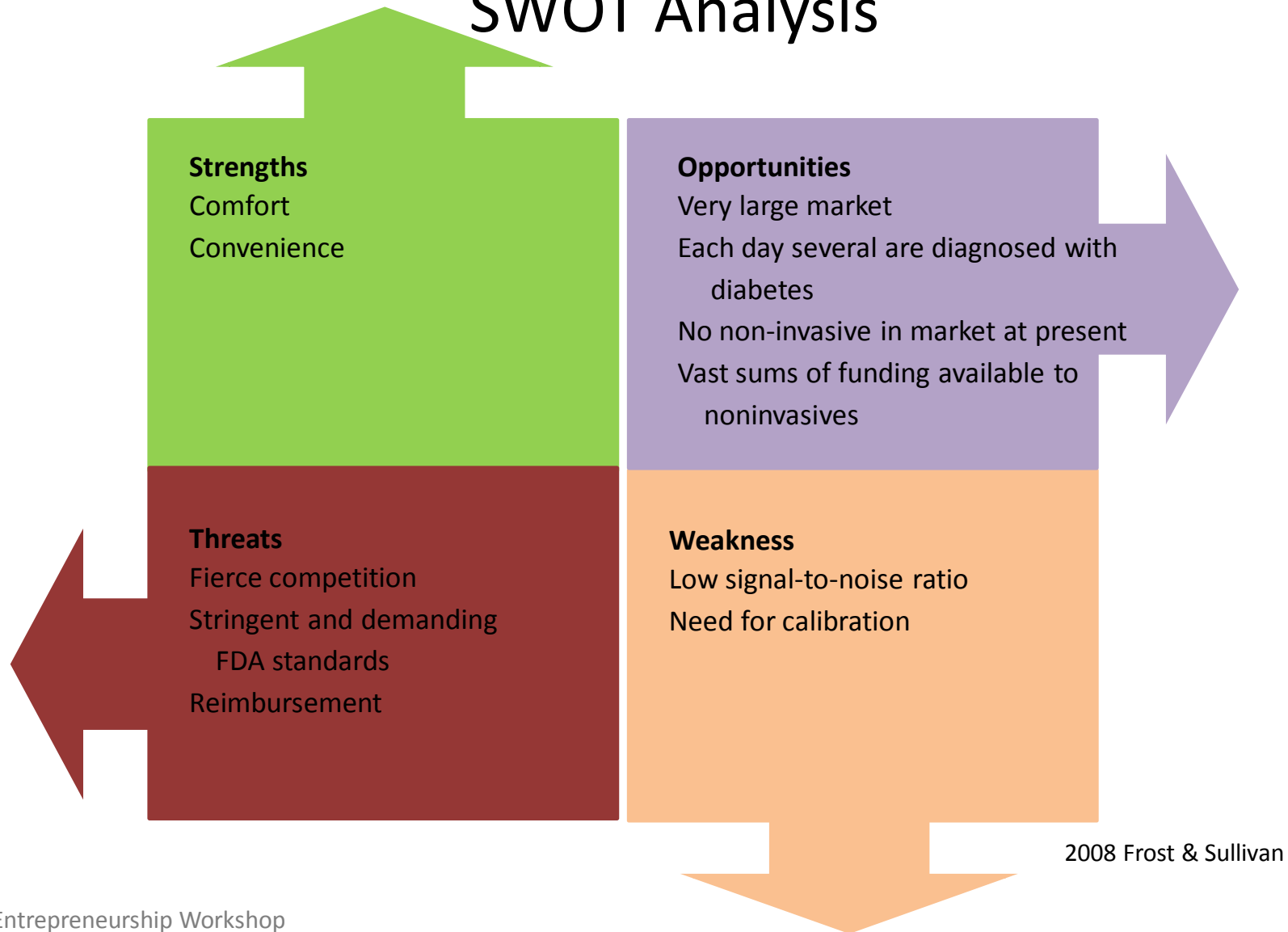
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Source: MedMarket Diligence, LLC; "Diabetes Management: Products, Technologies, Markets and Opportunities Worldwide 2009-2018." [Report #D510](#).

SWOT Analysis



Technology Push versus Market Pull

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Technology push?



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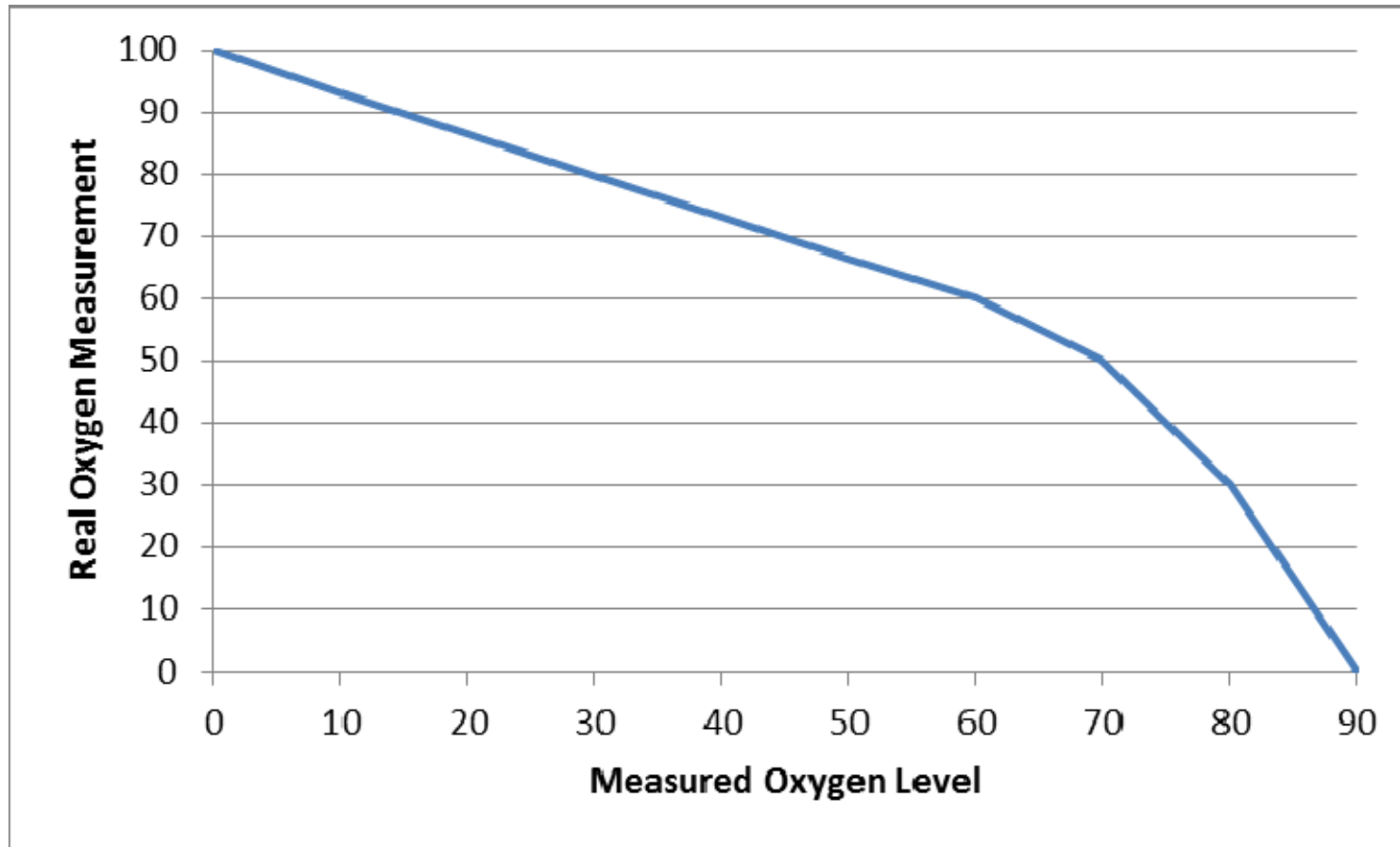
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Research Without End

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Don't worry about non-linearity...



Your Solution: Is it commercially viable?

Did you solve the problem:

- within the technical constraints

AND

- within the commercial constraints

Regulatory Compliance

- Record your designs and all changes to them right from the start.
- Consult experts in local and international compliance regulations. They can advise you on ISO standards (International Organisation for Standardisation) and IEC standards (International Electrotechnical Commission).
- Remember that if you export you will need to comply with the regulations of the country you are exporting to – e.g. the Food and Drug Administration (FDA) in the USA.

What is Your Invention Worth?

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