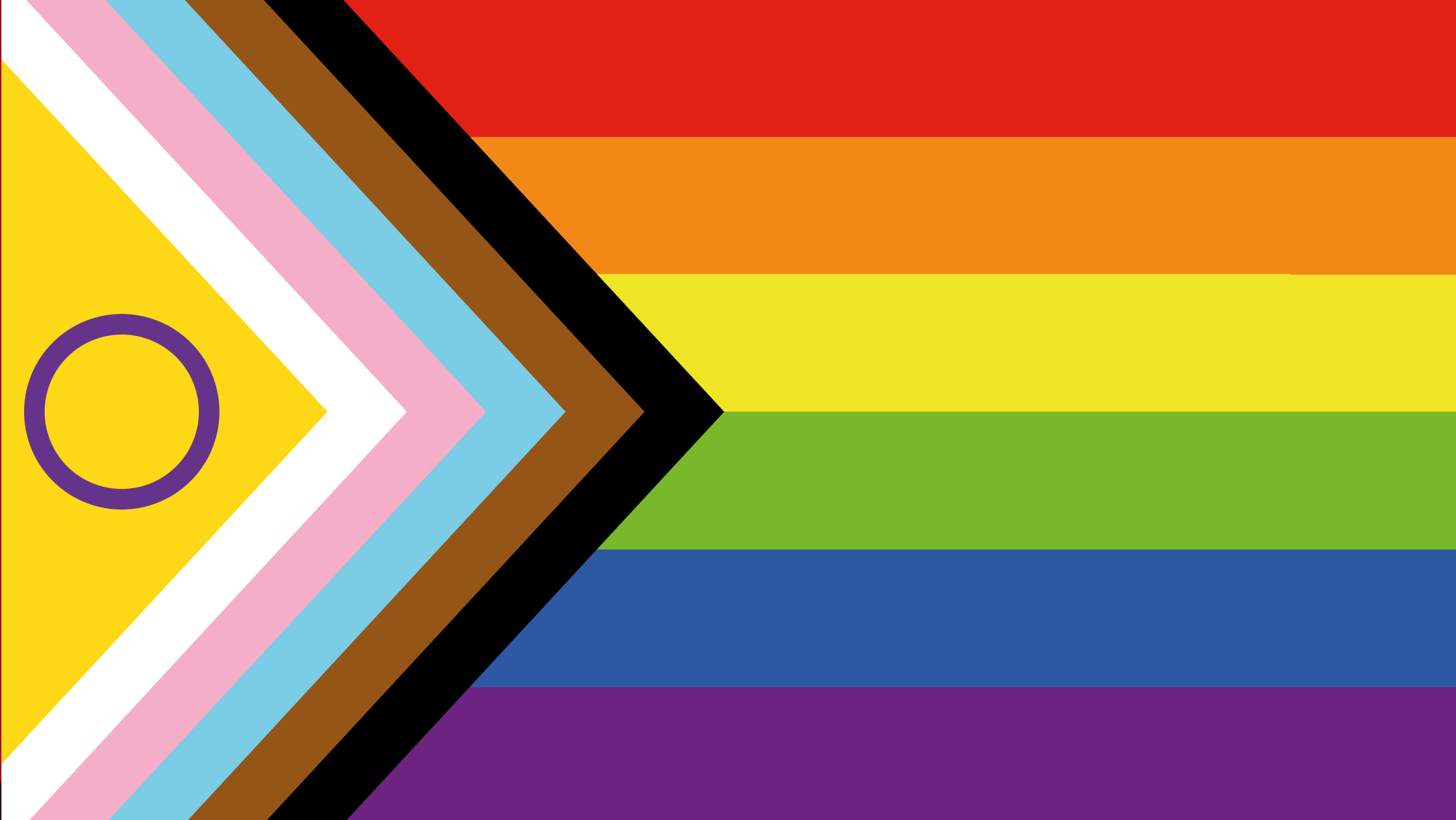


Reducing Waste
and other ideas from Sci-Fi

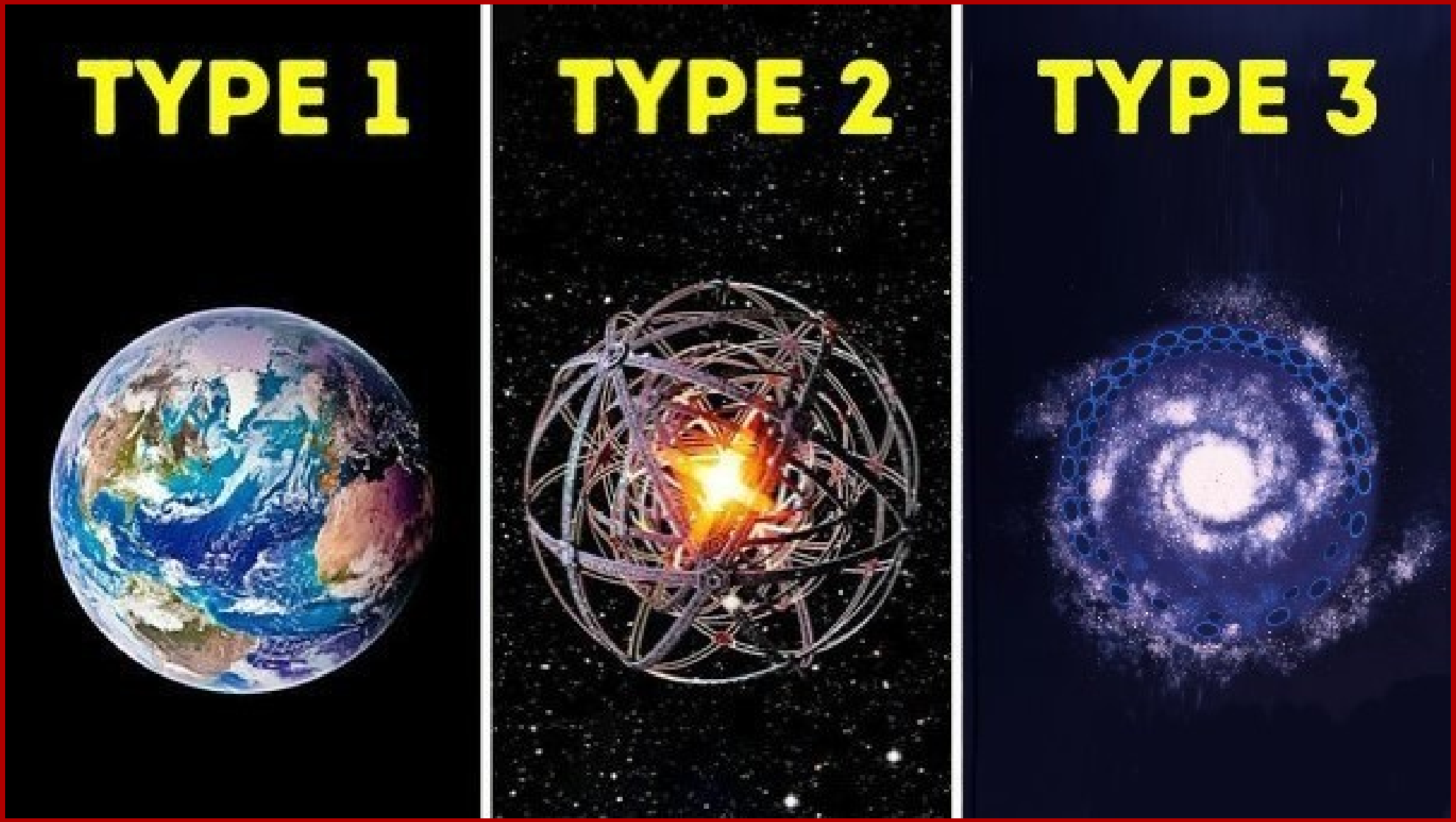
Andy Bennett
a@jpb.li

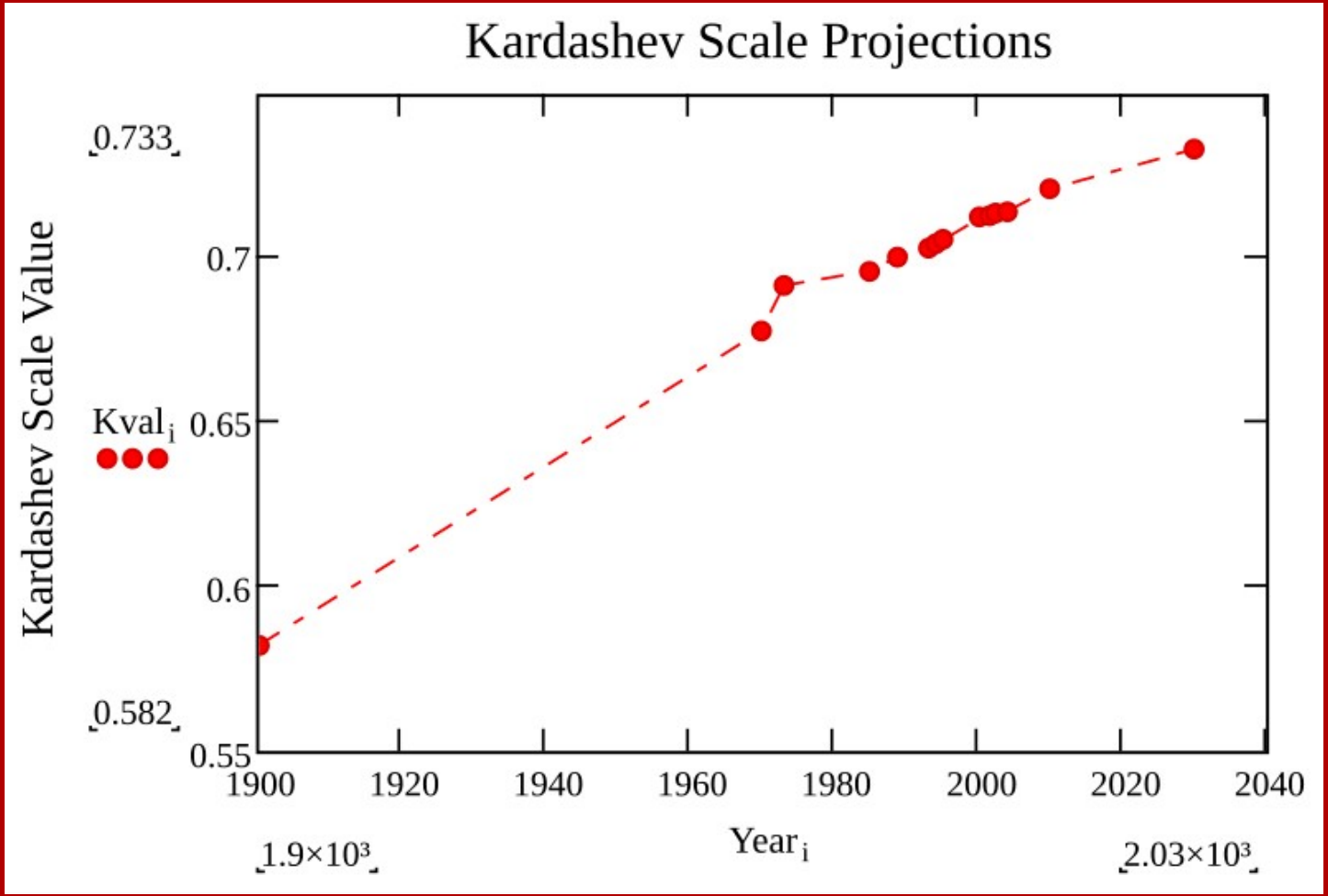
Sales Summary
Branch Offices
(Thousands)
100
90
80
70
60
50
40
30
20
10
0
Oct-Dec
Jan-Mar
Apr-Jun
Jul-Sep
Sales Period
Atl
Boston
olivetti
PERSONAL
COMPUTER
M24

1) Where we’re going

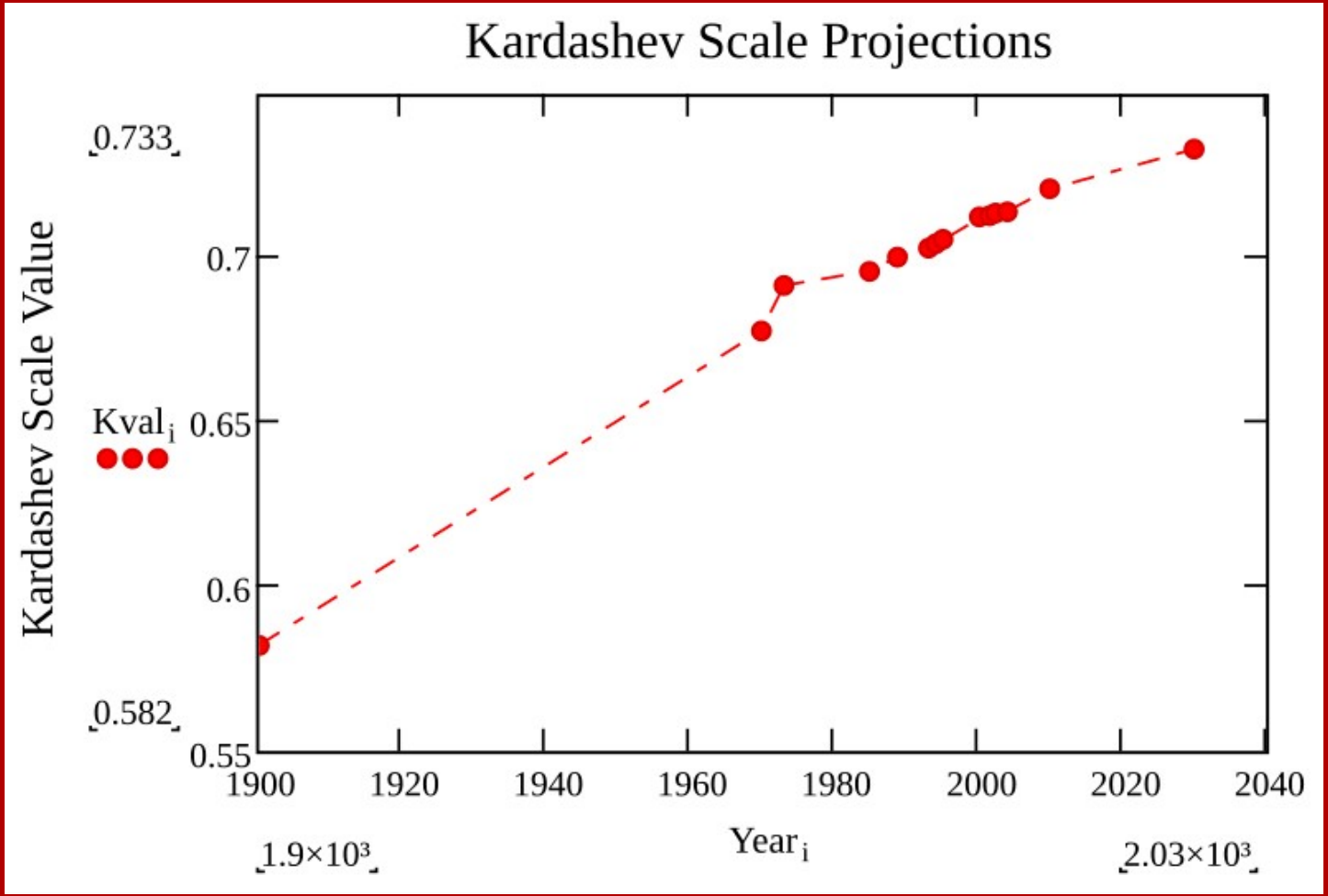
The Kardashev scale (Шкала́ Кардашёва)

Is a method of measuring a civilization's level of technological advancement based on the amount of energy it is capable of harnessing and using.


TYPE 1
TYPE 2
TYPE 3

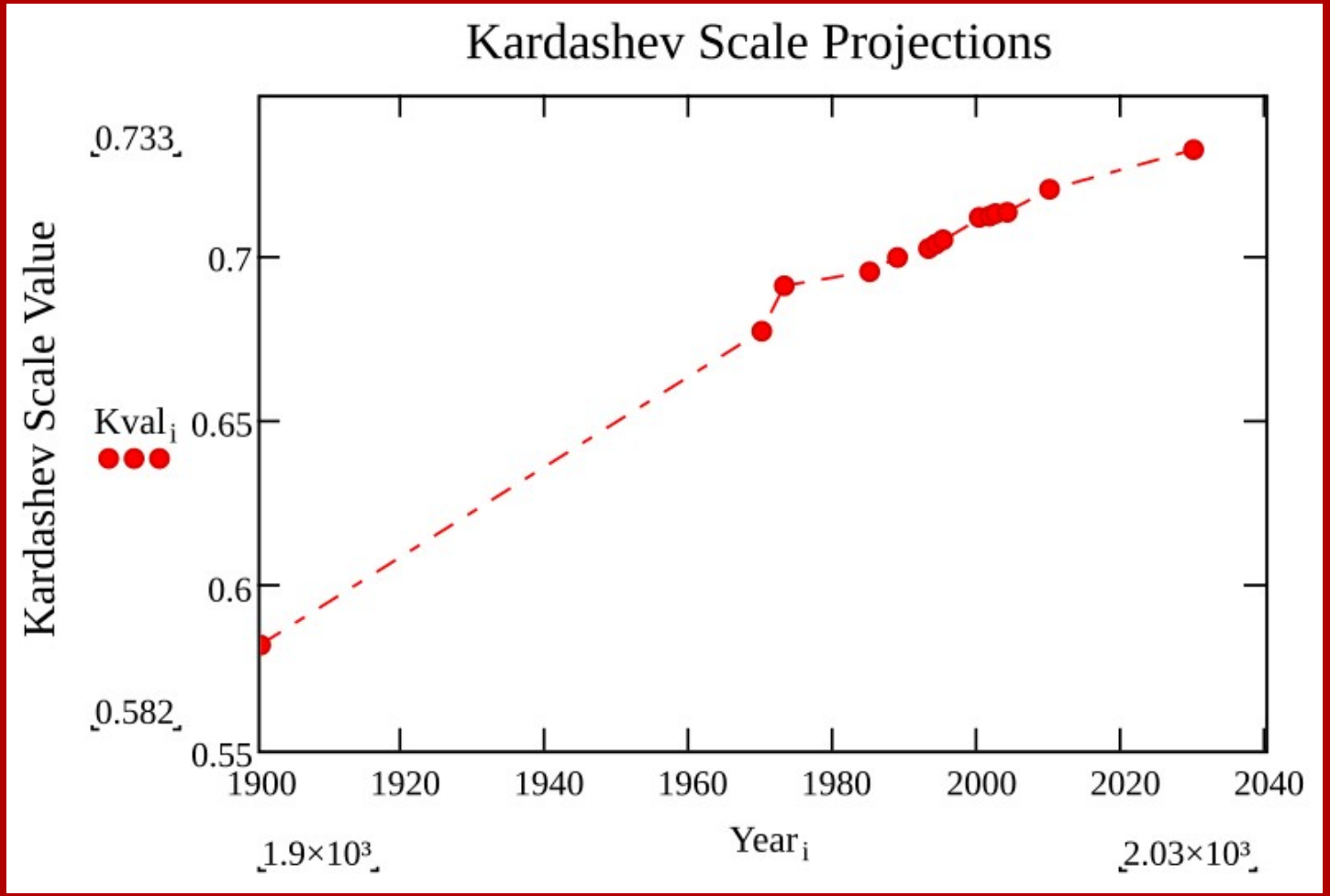


https://en.wikipedia.org/wiki/File:KScale.svg



Target
$4.4 \times 10^{16} W$

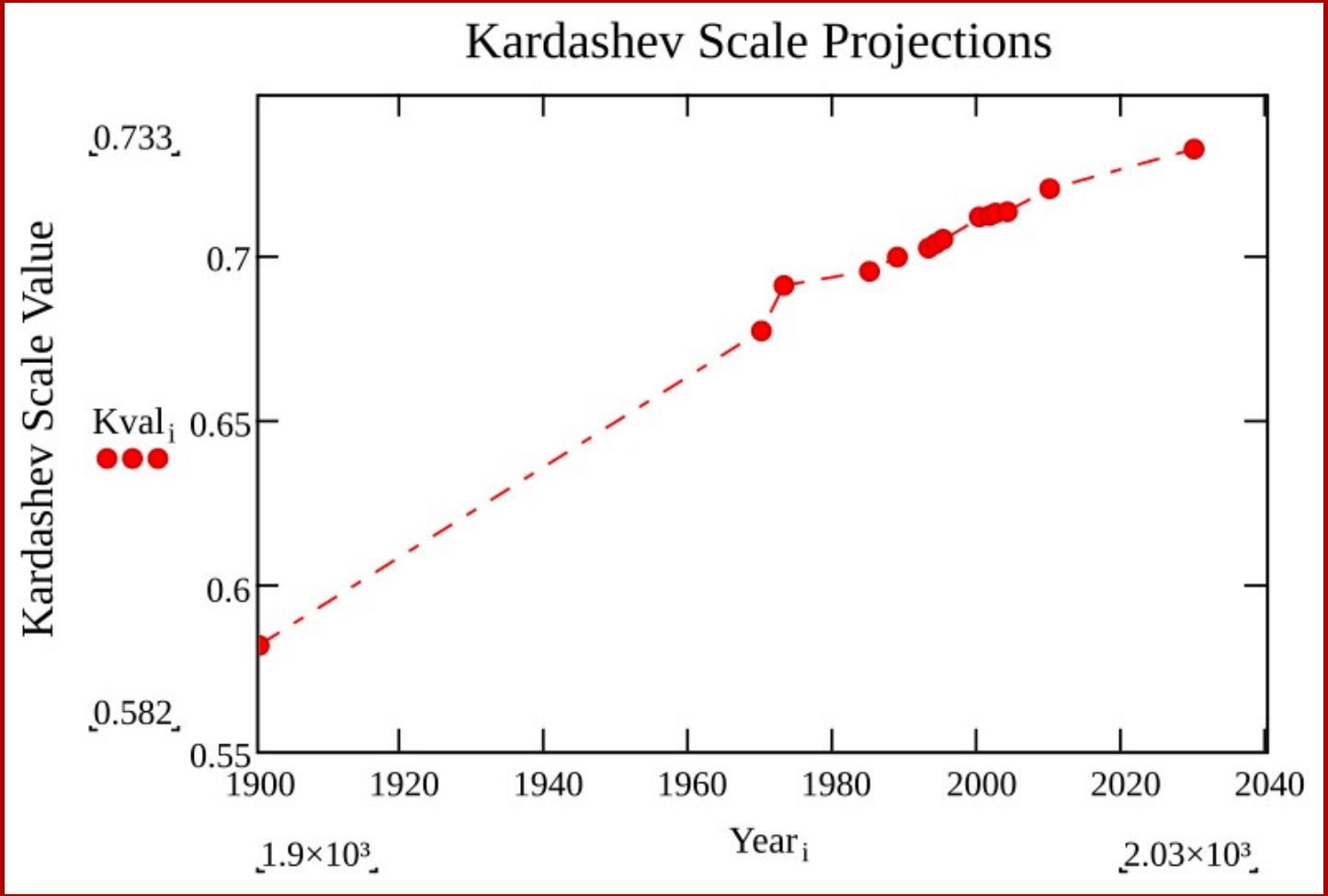
https://en.wikipedia.org/wiki/File:KScale.svg



2021
1.9×10^{13}W

Target
4.4×10^{16}W

https://en.wikipedia.org/wiki/File:KScale.svg



2021
1.9×10^{13}W

X 2,250

Target
4.4×10^{16}W

https://en.wikipedia.org/wiki/File:KScale.svg

2021

1.9×10^{13}W

↓

X 2,250

↓

Target

4.4×10^{16}W

1900
7.6×10^{9}W

2021
1.9×10^{13}W

↓

X 2,250

↓

Target
4.4×10^{16}W

https://visualizingenergy.org/world-electricity-generation-since-1900/

1900

7.6×10^{9}W → X 2,500 →

2021

1.9×10^{13}W

↓

X 2,250

↓

Target

4.4×10^{16}W

https://visualizingenergy.org/world-electricity-generation-since-1900/

2) Where we are

Reducing waste reduces duplication

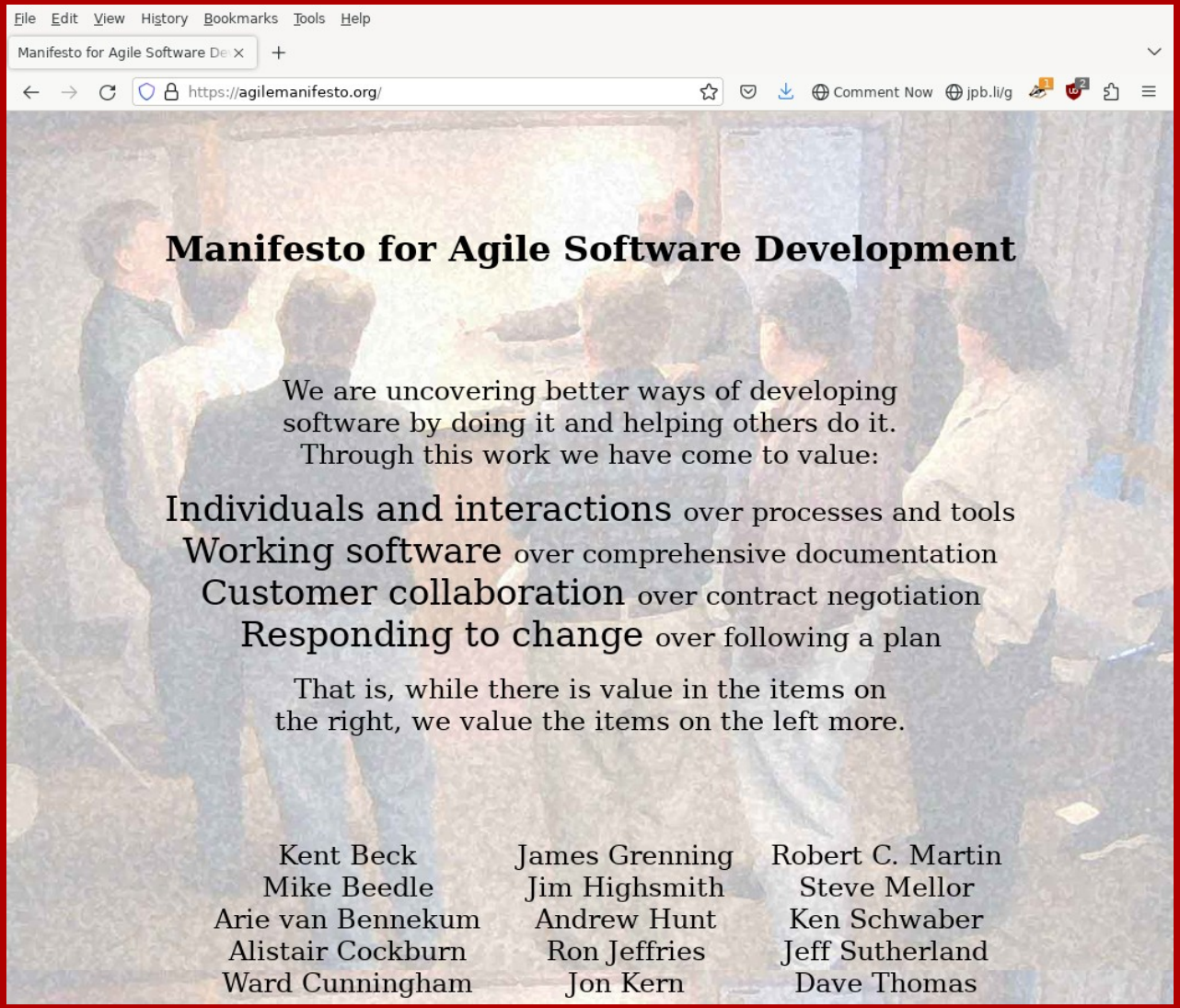
Reducing waste improves efficiency

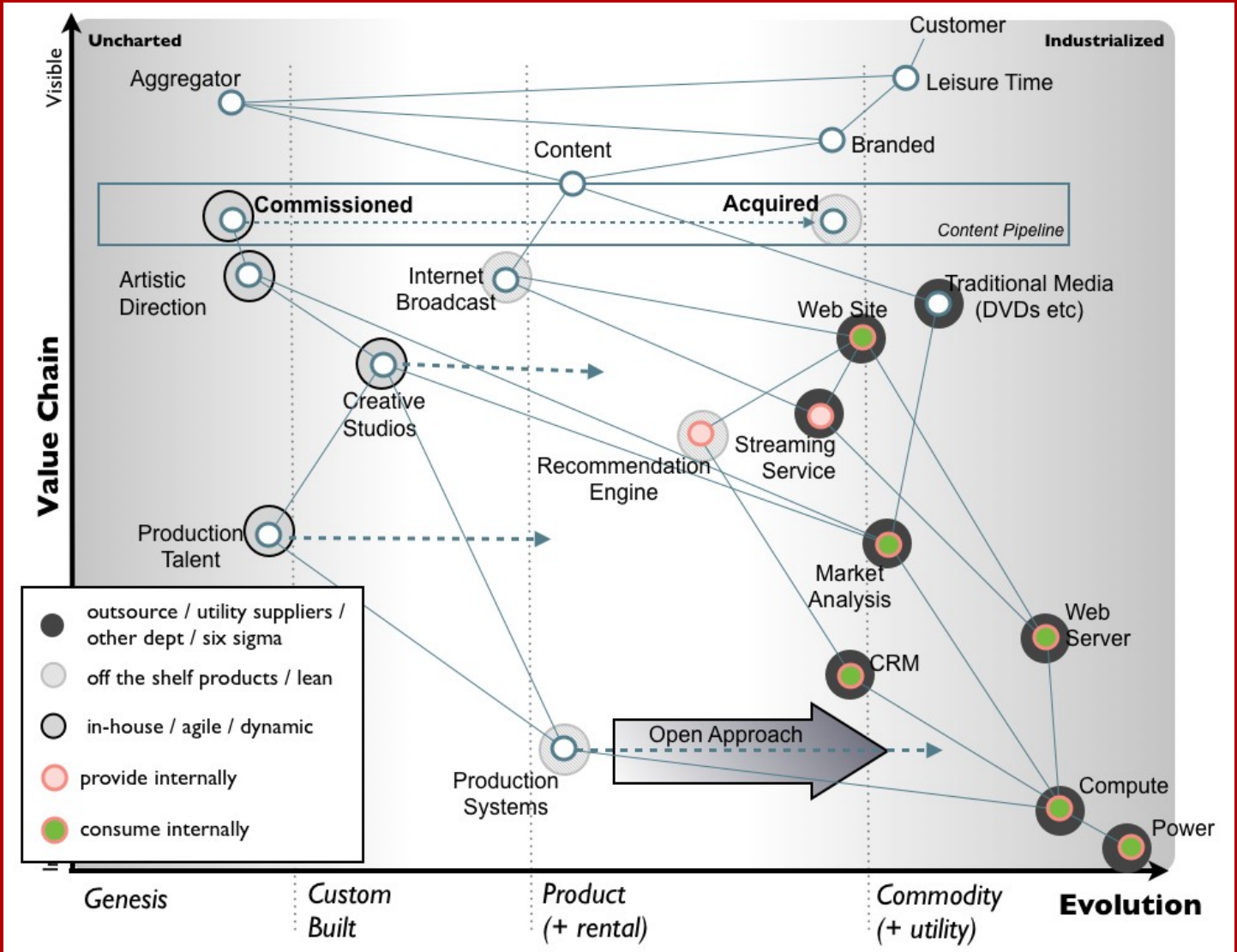
Reducing waste saves money

No worthwhile human achievement

has ever been instigated on the basis of

demonstrable cost effectiveness.


File Edit View History Bookmarks Tools Help
Manifesto for Agile Software De
https://agilemanifesto.org/
Comment Now
jpb.li/g
Manifesto for Agile Software Development
We are uncovering better ways of developing
software by doing it and helping others do it.
Through this work we have come to value:
Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan
That is, while there is value in the items on
the right, we value the items on the left more.
Kent Beck
Mike Beedle
Arie van Bennekum
Alistair Cockburn
Ward Cunningham
James Grenning
Jim Highsmith
Andrew Hunt
Ron Jeffries
Jon Kern
Robert C. Martin
Steve Mellor
Ken Schwaber
Jeff Sutherland
Dave Thomas


Uncharted
Industrialized
Visible
Value Chain
Customer
Aggregator
Leisure Time
Branded
Content
Commissioned
Acquired
Content Pipeline
Artistic Direction
Internet Broadcast
Traditional Media (DVDs etc)
Web Site
Creative Studios
Streaming Service
Recommendation Engine
Production Talent
Market Analysis
Web Server
CRM
Open Approach
Production Systems
Compute
Power
outsource / utility suppliers / other dept / six sigma
off the shelf products / lean
in-house / agile / dynamic
provide internally
consume internally
Genesis
Custom Built
Product (+ rental)
Commodity (+ utility)
Evolution

90%
of everything
is crud

https://www.who2.com/wp-content/uploads/2021/07/theodoresturgeon.jpg

3) Good news

2021

1.9×10^{13}W

↓

X 2,250

↓

Target

4.4×10^{16}W

2021

1.9×10^{13}W

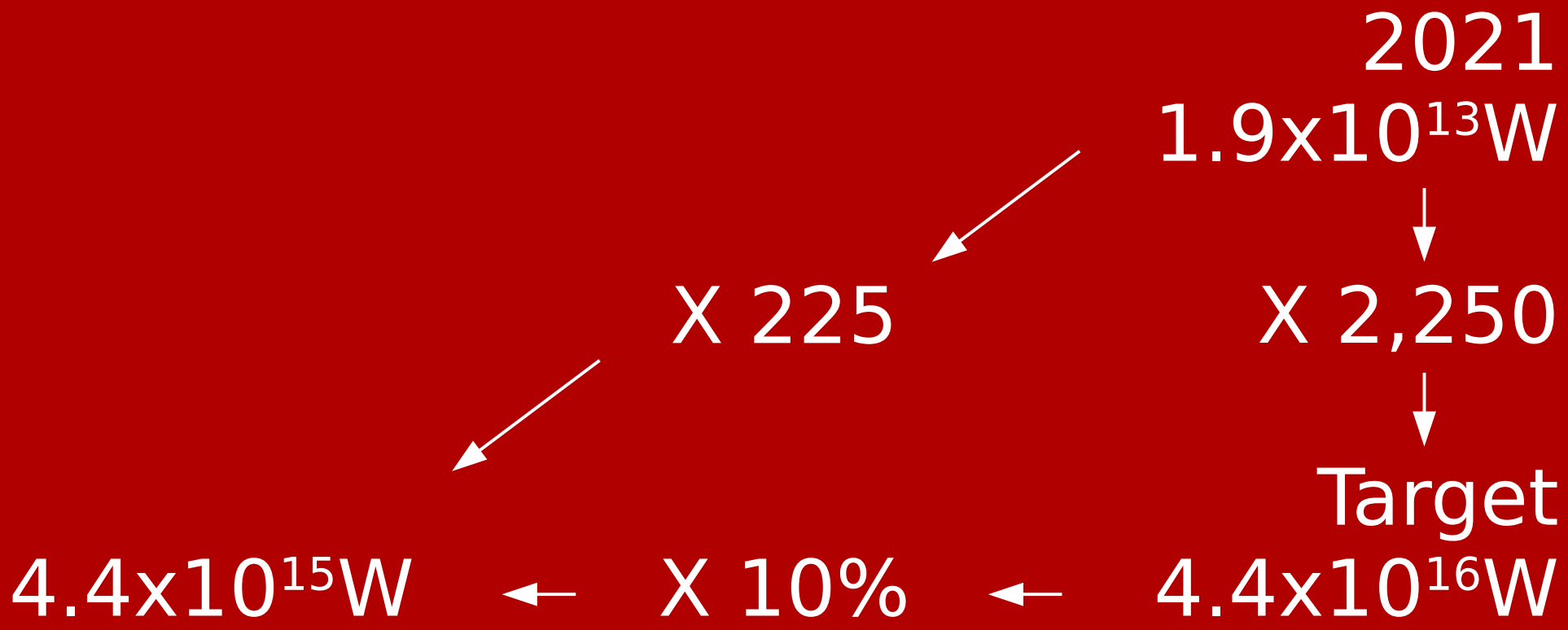
↓

X 2,250

↓

Target

4.4×10^{16}W ← X 10% ← 4.4×10^{15}W


2021
1.9x10¹³W
X 2,250
Target
4.4x10¹⁶W
X 10%
4.4x10¹⁵W
X 225

4) It’s happening already

File Edit View History Bookmarks Tools Help

https://www.techspot.com/news/95153-used-graphics-card-prices-

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HARDWARE GPU GRAPHICS CARD

Used graphics card prices fall up to 50% as more cryptominers sell their GPUs

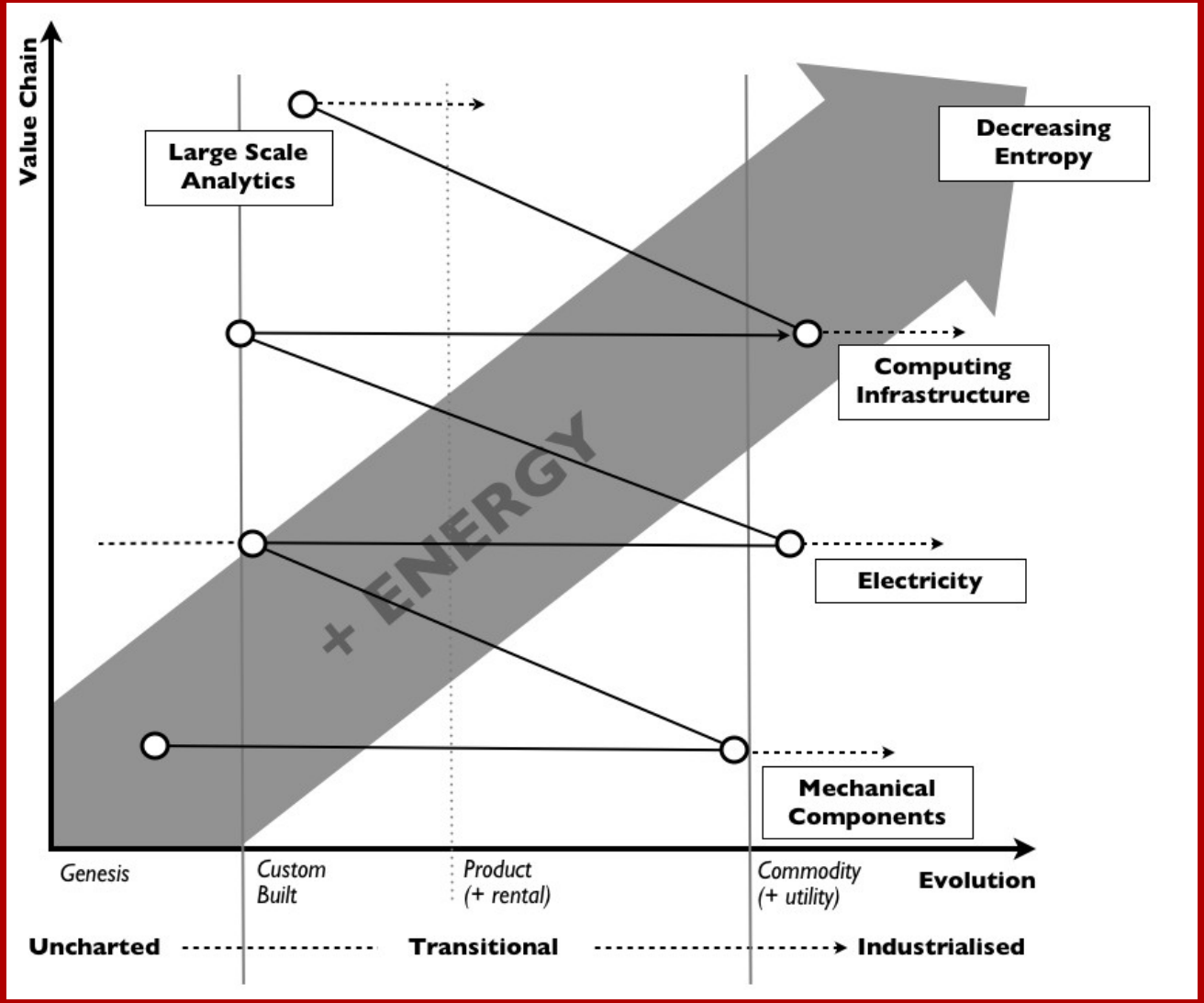
Would you buy a second-hand mining card?

By Rob Thubron July 1, 2022 at 6:55 AM | 27 comments

Serving tech enthusiasts for over 25 years.
TechSpot means tech analysis and advice you can trust.

Thanks!

Andy Bennett
@databasescaling


Value Chain
Large Scale Analytics
Decreasing Entropy
Computing Infrastructure
+ ENERGY
Electricity
Mechanical Components
Genesis
Custom Built
Product (+ rental)
Commodity (+ utility)
Evolution
Uncharted
Transitional
Industrialised

Oh, and just because I like a good debate. I'll leave you with this graph of progress.

Whilst being efficient with energy is good, anyone who thinks we can somehow reduce energy consumption permanently whilst maintaining progress needs to think again.