

A Glimpse of Tomorrow 2050

171115 Region Skåne

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NORDIC INNOVATION HOUSE

Helping Nordic Start-ups succeed in Silicon Valley

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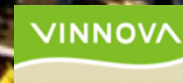
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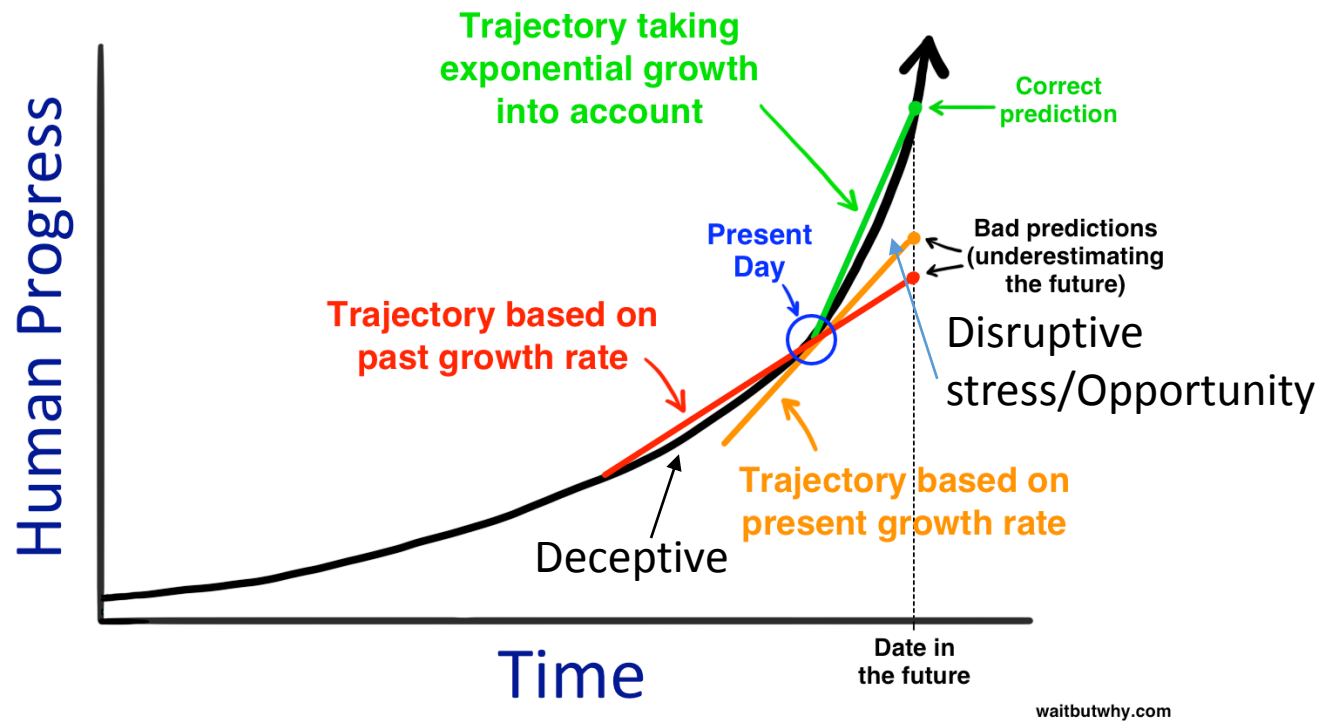
INNOVATION CENTRE DENMARK



Innovation Center
Iceland



EXPONENTIAL DEVELOPMENT



Exponential technologies:

Artificial intelligence (AI)
Augmented and virtual reality (AR, VR)
Data science
Digital biology and biotech
Medicine
Nanotech and digital fabrication
Networks and computing systems,
Robotics, and robocars
Etc...

AI Progress on Open Leaderboards - Benchmark Roadmap

Perceive World		Develop Cognition		Build Relationships		Fill Roles	
Pattern recognition	Video understanding	Memory	Reasoning	Social interactions	Fluent conversation	Assistant & Collaborator	Coach & Mediator
Speech	Actions	Declarative	Deduction	Scripts	Speech Acts	Tasks	Institutions
Chime	Thumos	SQuAD	SAT	ROC Story	ConvAI		
Images	Context	Episodic	Induction	Plans	Intentions	Summarization	Values
ImageNet	VQA				DSTC	RALI	General-AI
Translation	Narration	Dynamic	Abductive	Goals	Cultures	Debate	Negotiation
WMT	DeepVideo				Alexa Prize	ICCMA	AT
<i>Learning from Labeled Training Data and Searching (Optimization)</i>							
				<i>Learning by Watching and Reading (Education)</i>			
				<i>Learning by Doing and being Responsible (Exploration)</i>			
2015	2018	2021	2024	2027	2030	2033	2036

Approx.
Year
Human
Level ->

Which experts would be really surprised if it takes less time... and which experts really surprised if it takes longer?

Constant Advances of 3D printing

More metals

Multi-material processes

Full color

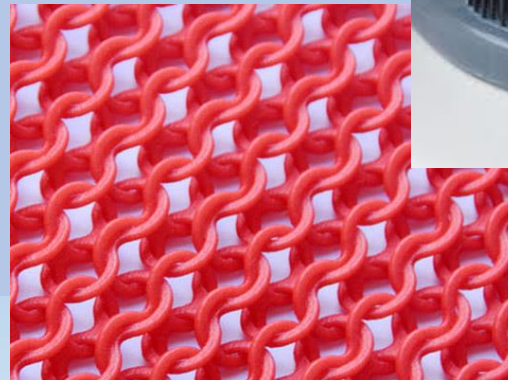
Faster print speeds

Sustainable materials

Larger prints

More precise parts

Printing in the wild



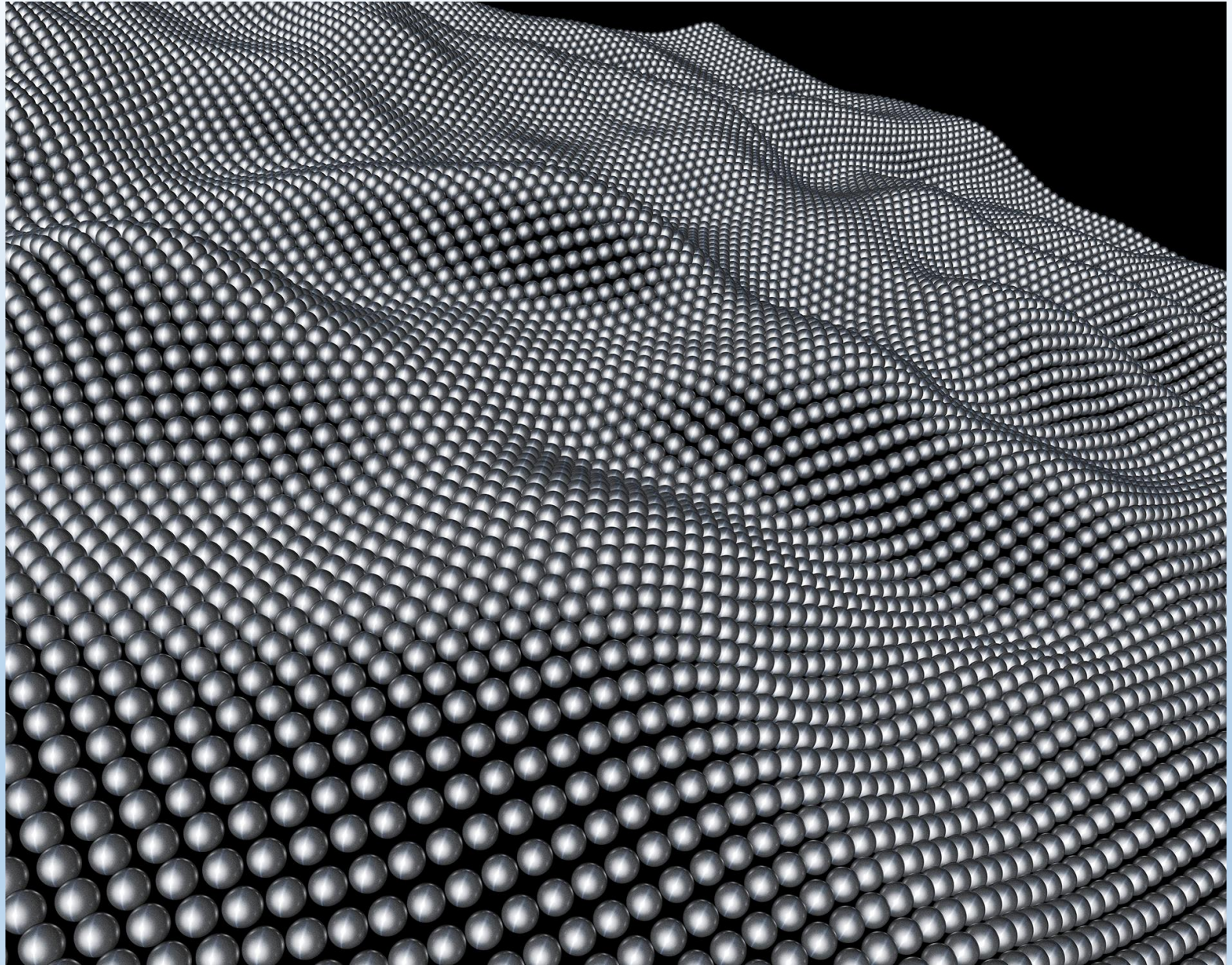
Manipulating matter

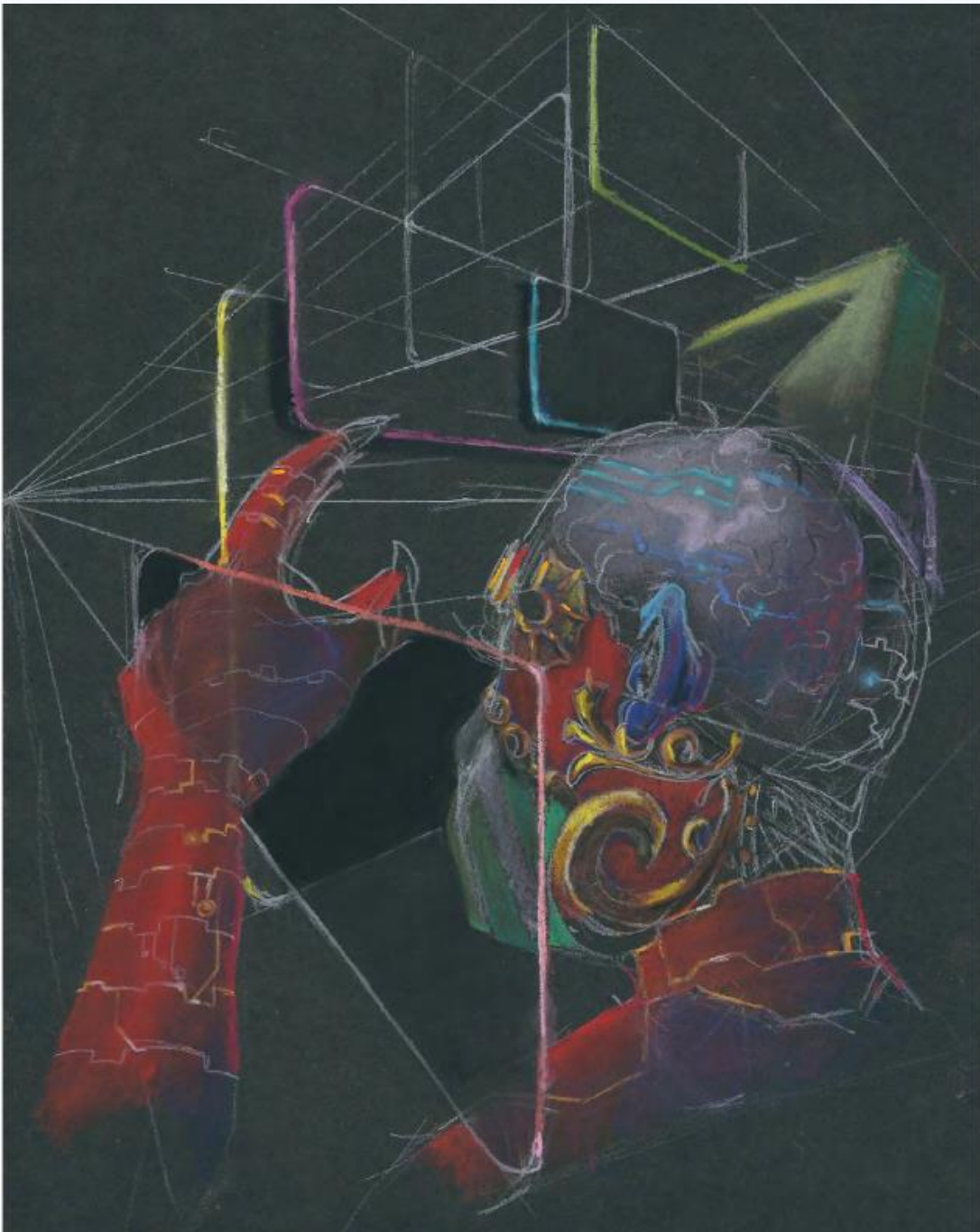
Atomically Precise
Engineering

Bio-Engineering
toolbox

-CRISPR

- etc..





Wetware-Hardware Hybrids

Cloud-AI-Enhanced Brain

Read & Write capabilities

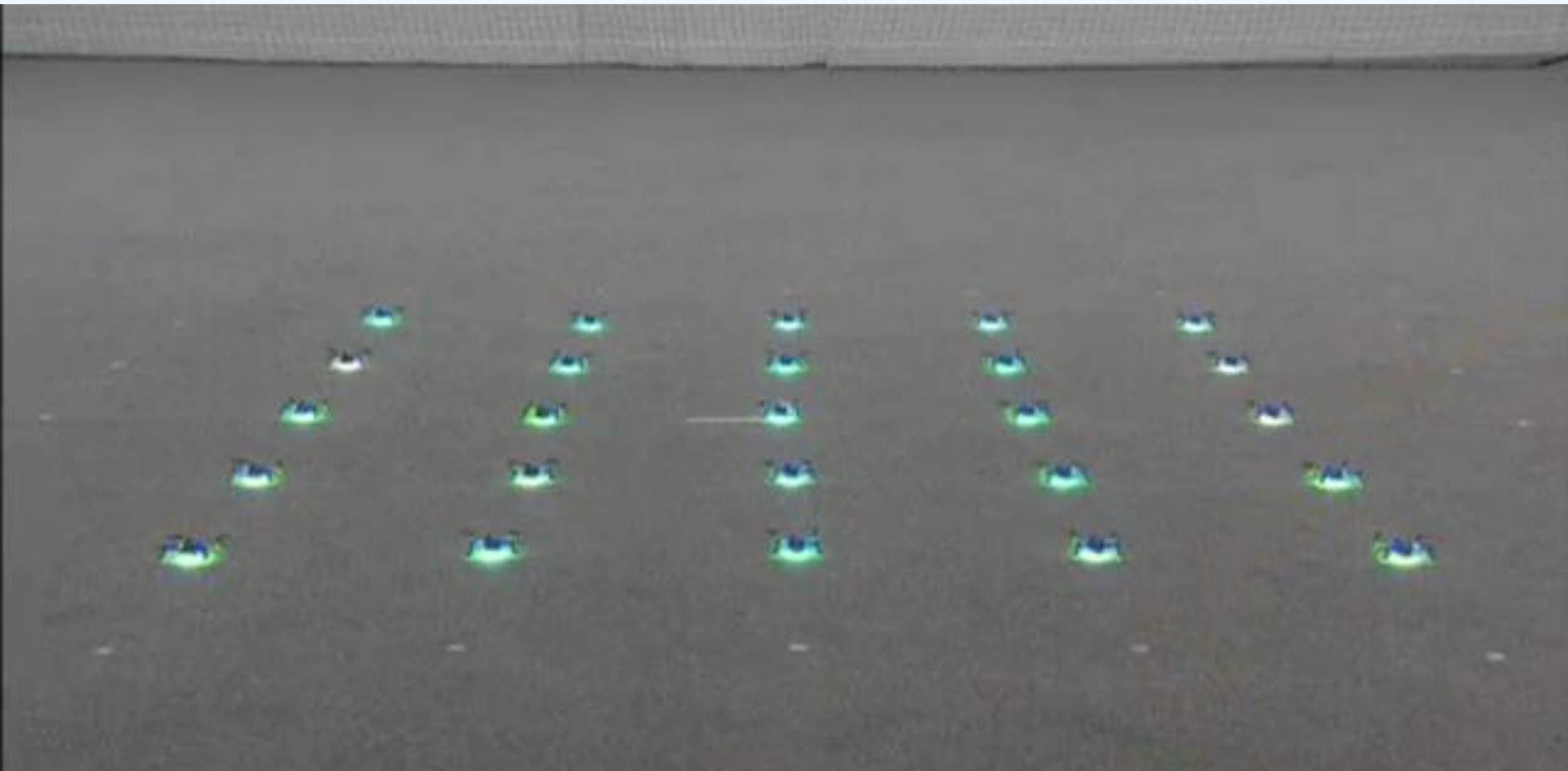
Autonomous systems and animated everything

Intelligent Environments

Connected Robots

- Communicate independently of us
- Sharing intelligence
- Swarms of connected robots





"We're gonna live forever..."

Stem cell therapy

3D organ printing

Precision preventive Healthcare
thanks to all sorts of sensors
and "X-omics"

Microbiomics

Transcriptomics

Genomics

etc...

When and how
will we die?



“Upwards and onwards!”

“The largest colonial fleet ever arrives at Mars with 1000 colonists landing at *Mars City* and 200 more at *Mining Base Beta*.”

<http://www.humanmars.net/p/mars-colonization-timeline.html>



The Technologies will be there – How will we apply them?

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