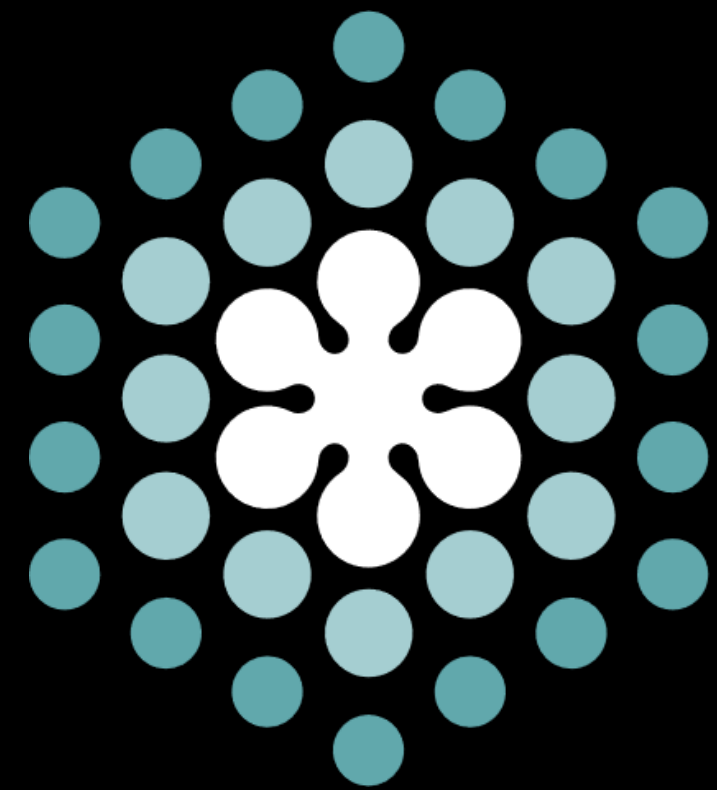


We work with
Innovate UK



Agrimetrix

THE CATALYST FOR CHANGE

UNLOCKING SOLUTIONS THROUGH BIG DATA

Institution of Agricultural Engineers

30 October 2019

Benjamin Turner, Chief Operating Officer

Unrestricted





google 10 results Google Search I'm feeling lucky

Showing results 1-10 of approximately 234,000 for google. Search took 0.06 seconds.

[Take me back to the present](#)

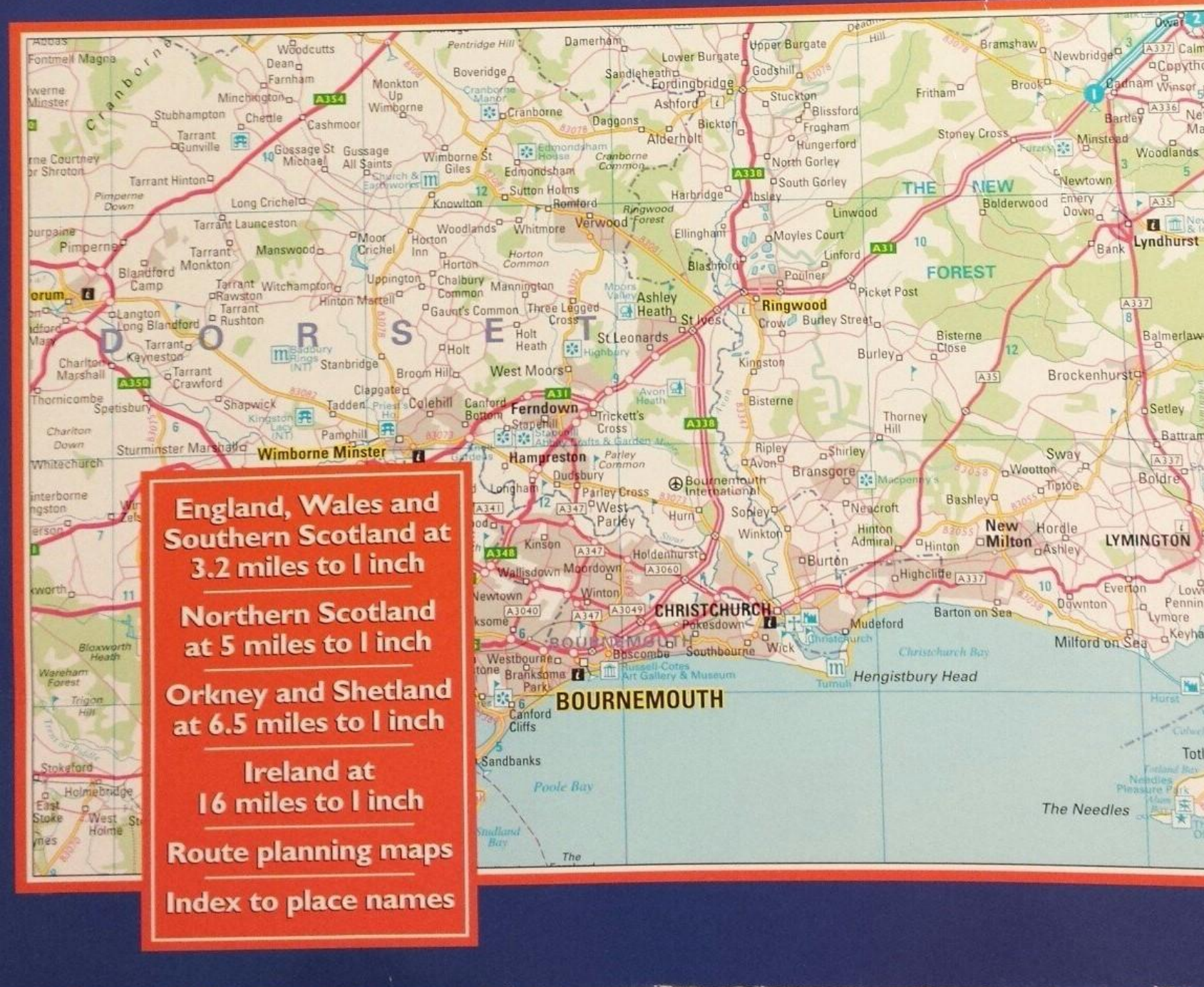
[Google](#) ([Google](#)^{RN})

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99
• Bartholomew •
1999 ROAD ATLAS
BRITAIN
& IRELAND







AT&T LTE 4:28 PM 96%



'50s
GENRE RADIO

FOLLOW

PLAY RADIO

In This Station

The Yardbirds, The Flamingos, Les Paul, Chuck Berry, Carl Perkins, and more.

Songs

My Babe - Single Version
Little Walter • Blues Greats: Little Walter

Heavy Rain • Nature Sounds
Devices Available

Home Browse Search Radio Your Library




08:27

FRI 28

921



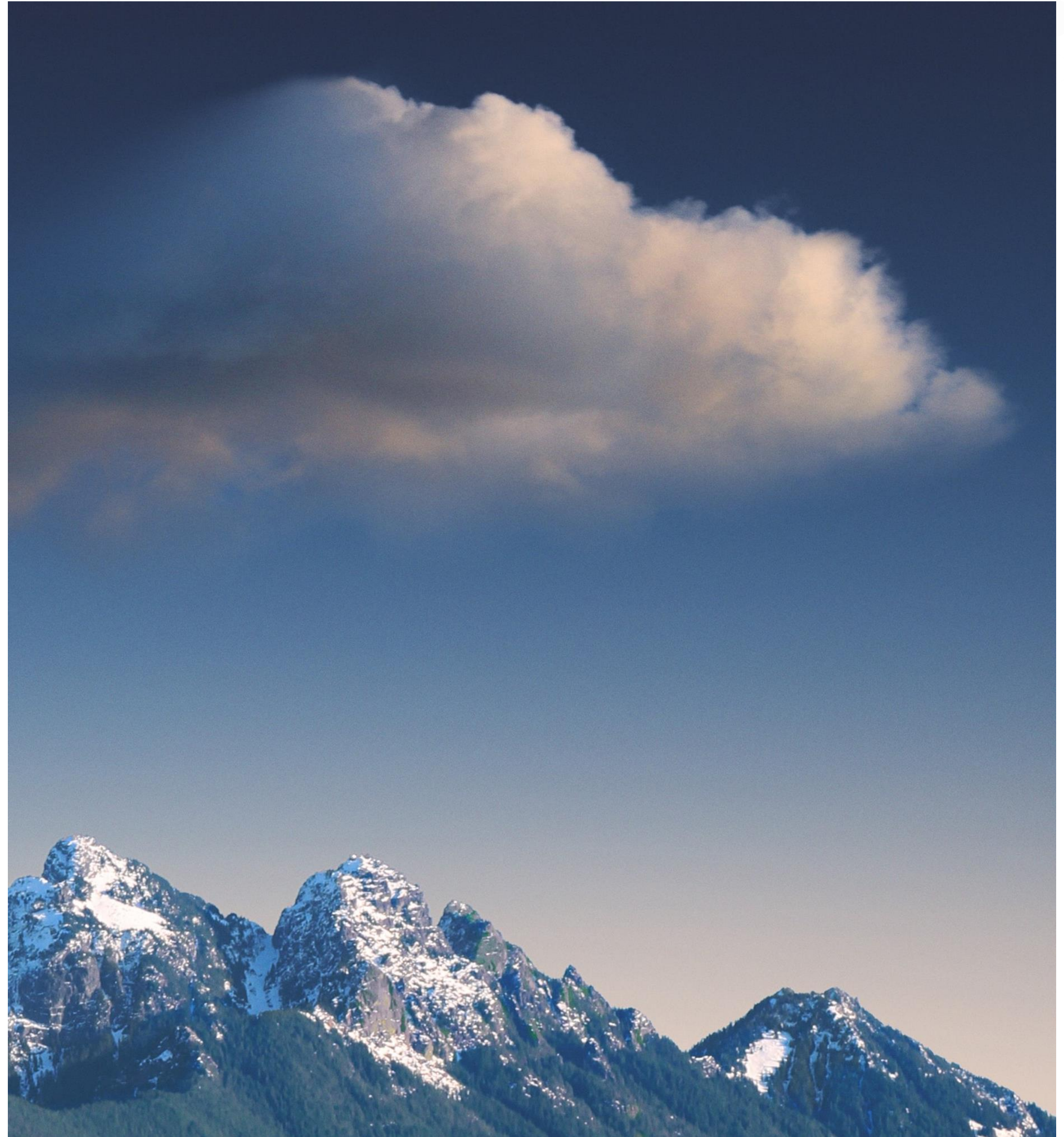
A network diagram consisting of several interconnected nodes and lines, located in the top right corner of the slide.

**“Most people
overestimate what they can do
in one year
and**

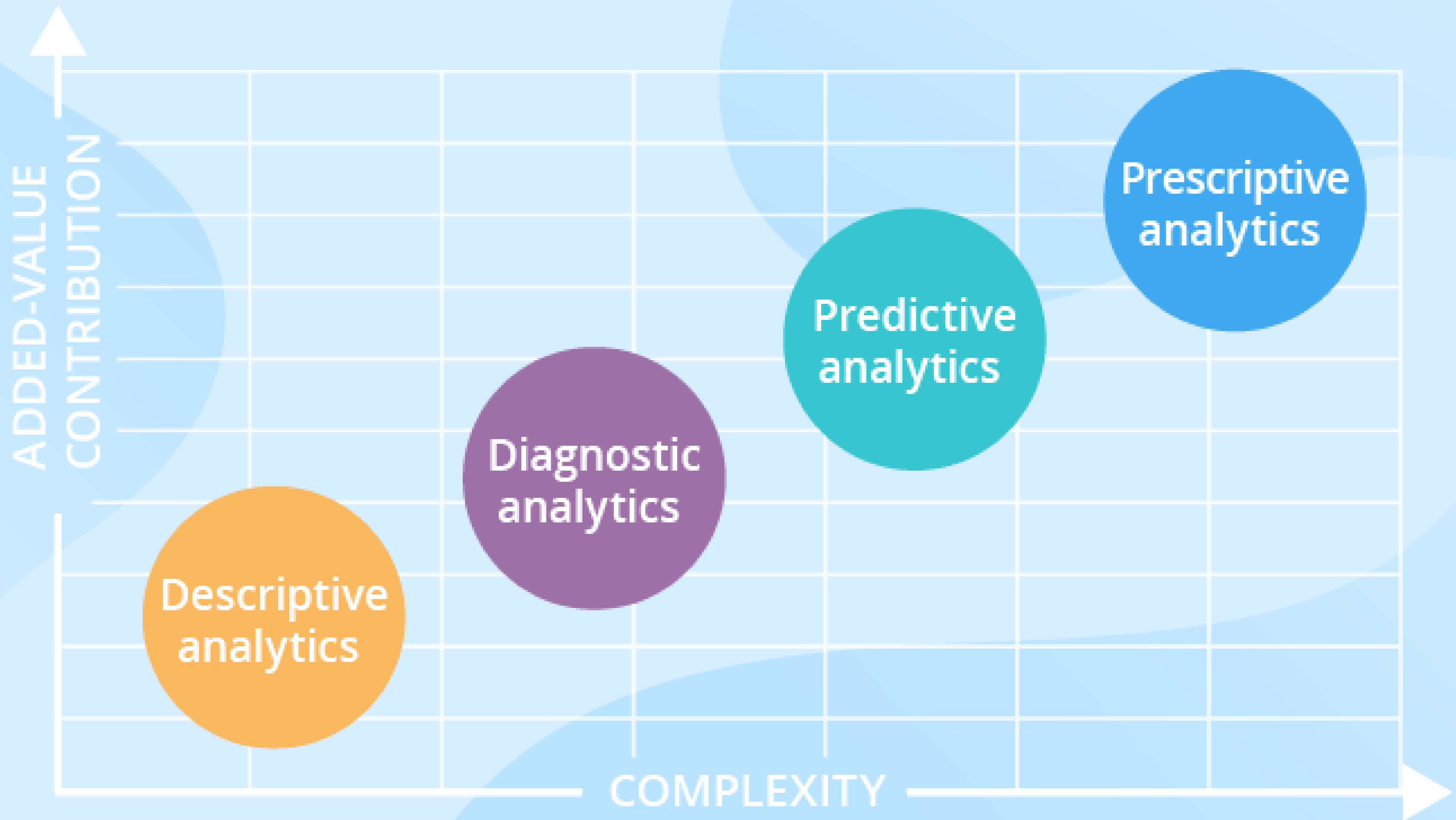
A network diagram consisting of several interconnected nodes and lines, located in the bottom left corner of the slide.

**underestimate what they can do
in ten” (Bill Gates)**





1 ZB = 1,000,000,000,000,000,000,000 Bytes



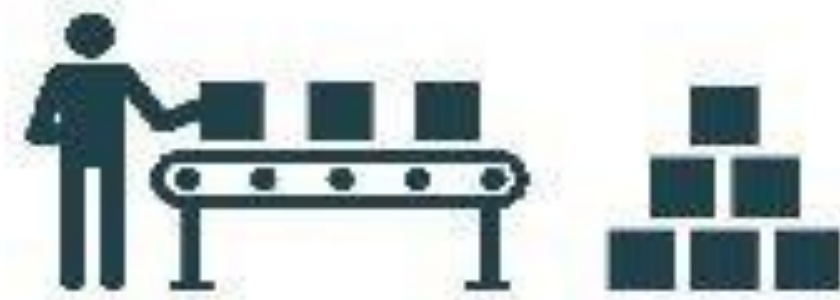


INDUSTRY 1.0

Mechanization, steam power, weaving loom

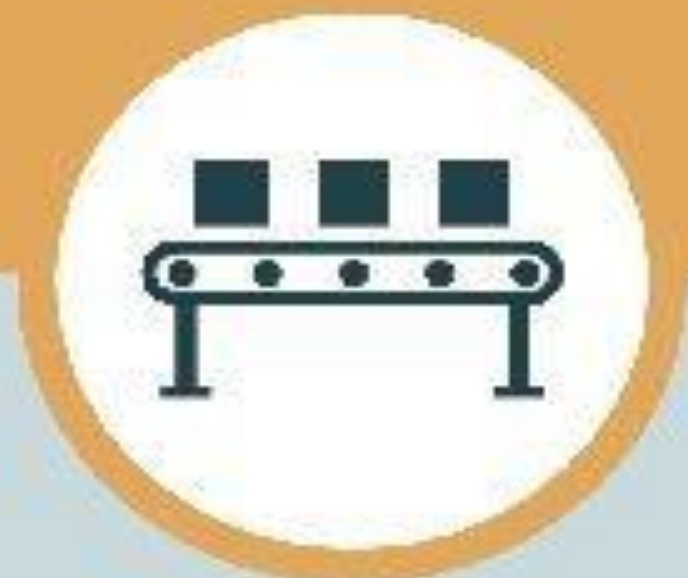


1784



INDUSTRY 2.0

Mass production, assembly line, electrical energy

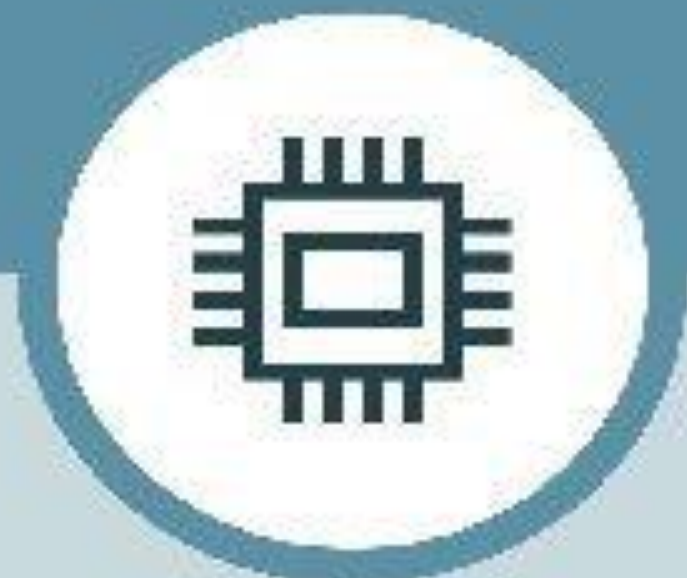


1870



INDUSTRY 3.0

Automation, computers and electronics



1969



INDUSTRY 4.0

Cyber Physical Systems, internet of things, networks

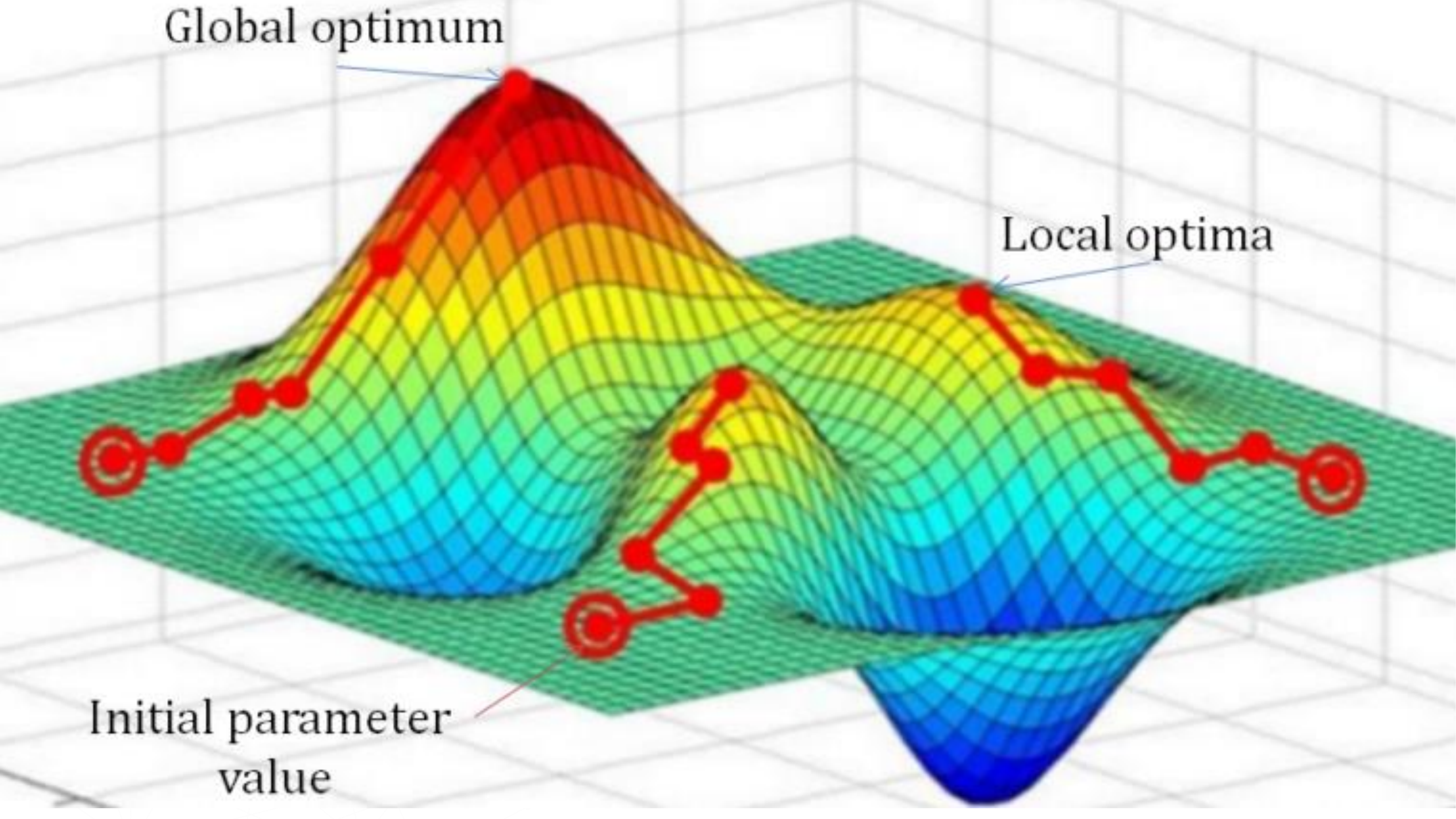


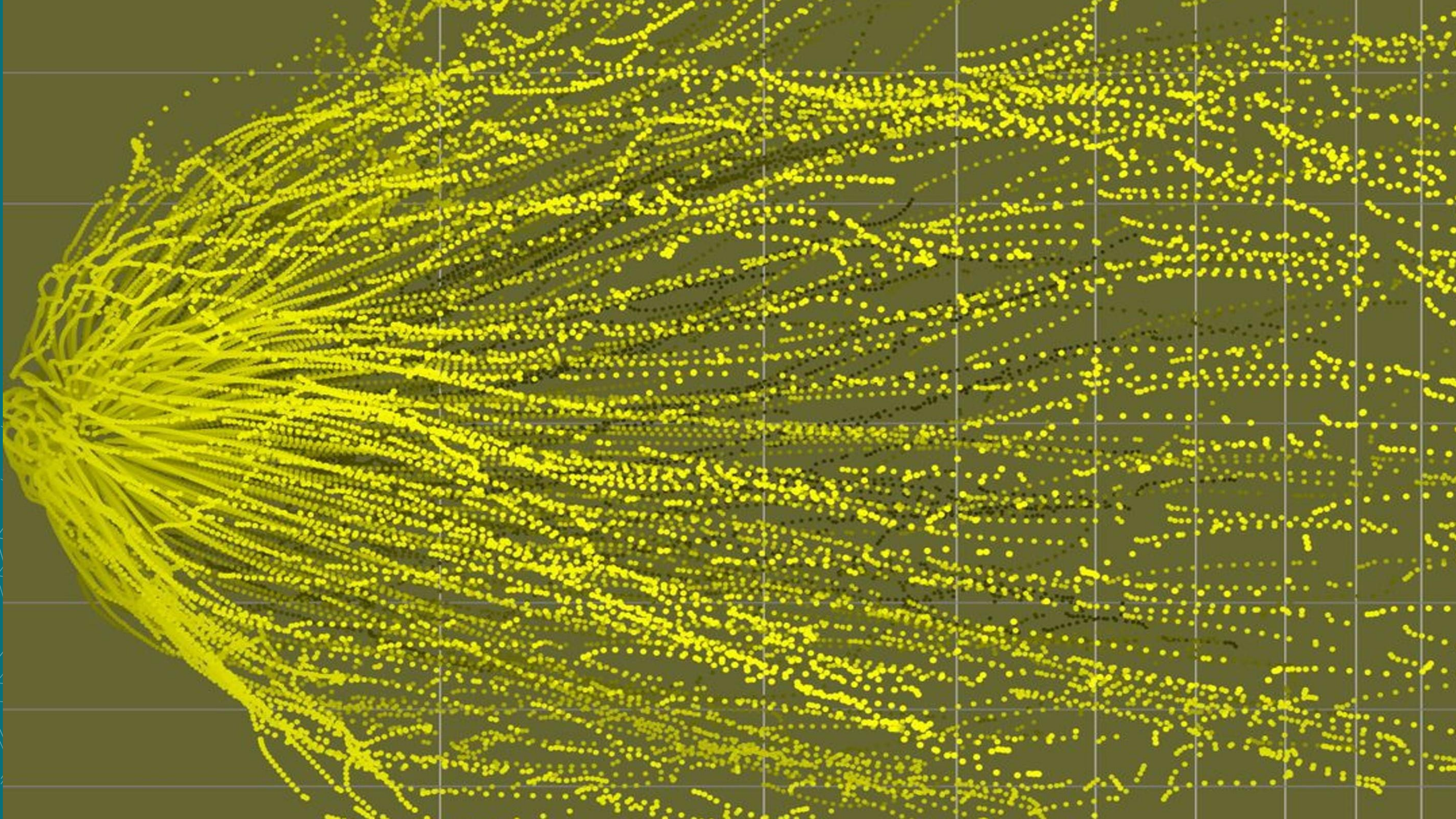
TODAY

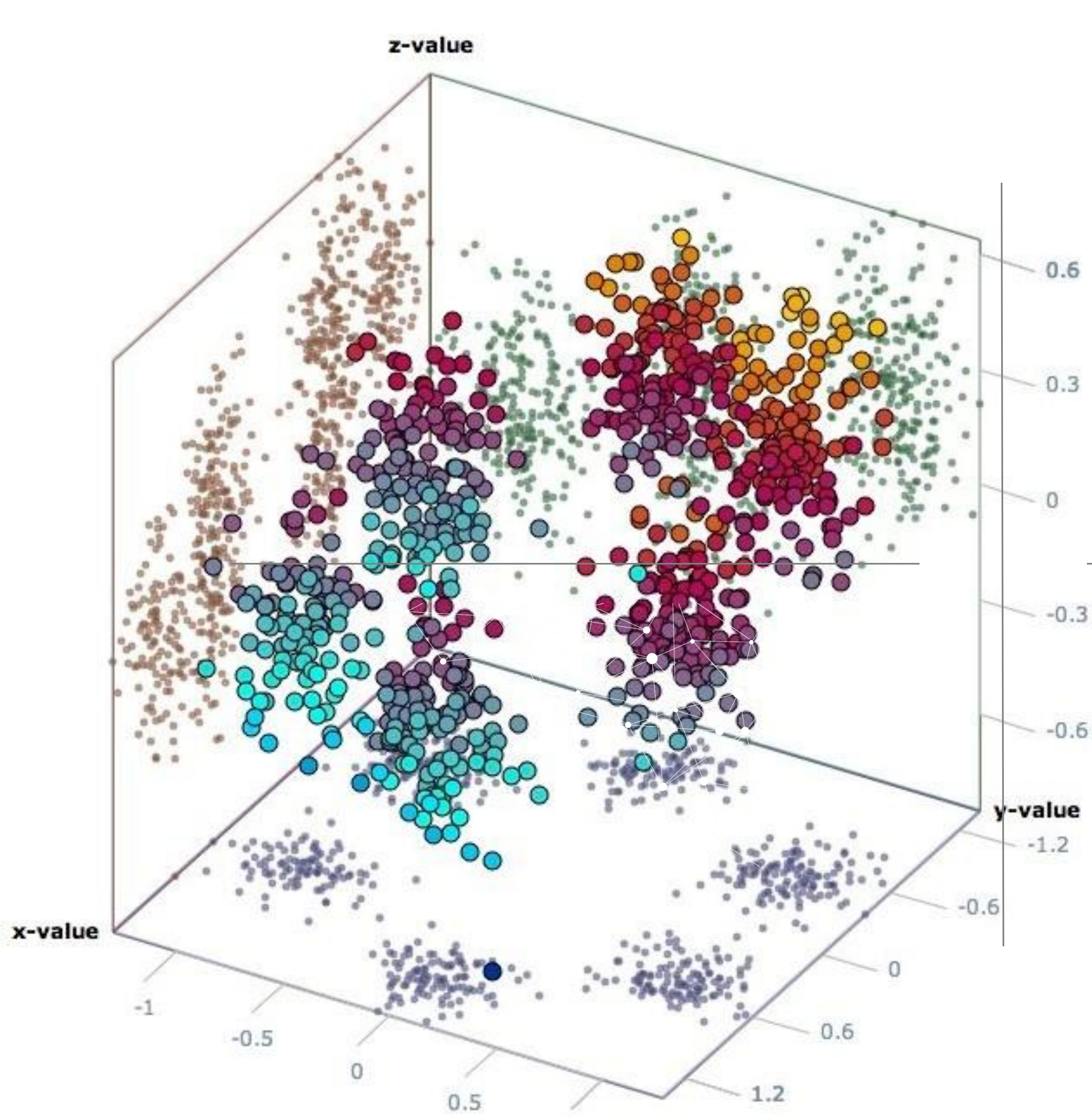
Global optimum

Local optima

Initial parameter value







rotate x

rotate y

rotate z

angles	120	180	60
planes	0	0	0

cut plane YZ

cut plane XZ

cut plane XY

z drop lines FALSCH

zoom

shift x

shift y

to-scale axes FALSCH

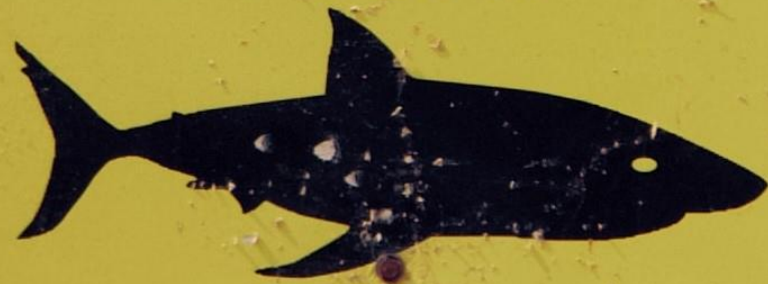
reset view

zoom	shift x	shift y
0	50	50
1	0	0

labels	x-value	y-value	z-value	4th dimension
	-0.5768972	0.87767746	0.63907806	
	-0.4021268	1.01206349	0.63245194	
	-0.6765584	0.78415401	0.59667069	
	-0.5825648	0.82212021	0.58569341	
	-0.6595329	1.0072249	0.57267597	
	-0.7163945	1.15783584	0.56703048	
	-0.9747435	0.09988608	0.55367591	
	-0.3735752	0.70264297	0.54904804	
	-0.7555001	0.7564527	0.54860436	
	-0.6174115	1.00992775	0.52066225	
	-0.774502	0.97559273	0.50560178	
	-0.4315748	0.68760276	0.50397693	
	-0.1161121	0.53808954	0.50394126	
	-0.5839705	0.65745609	0.5038978	
	-0.616833	1.13474787	0.50355943	
	-0.5464374	0.96725437	0.48579548	
	-0.6406668	-0.0605267	0.48559559	
	-0.5430622	0.66743246	0.48355774	
	-0.6919743	0.79939283	0.47967652	
	-0.9038901	-0.0817195	0.479361	
	-0.9007266	0.74338394	0.47133236	
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	-0.4191751	0.78860775	0.45075498	

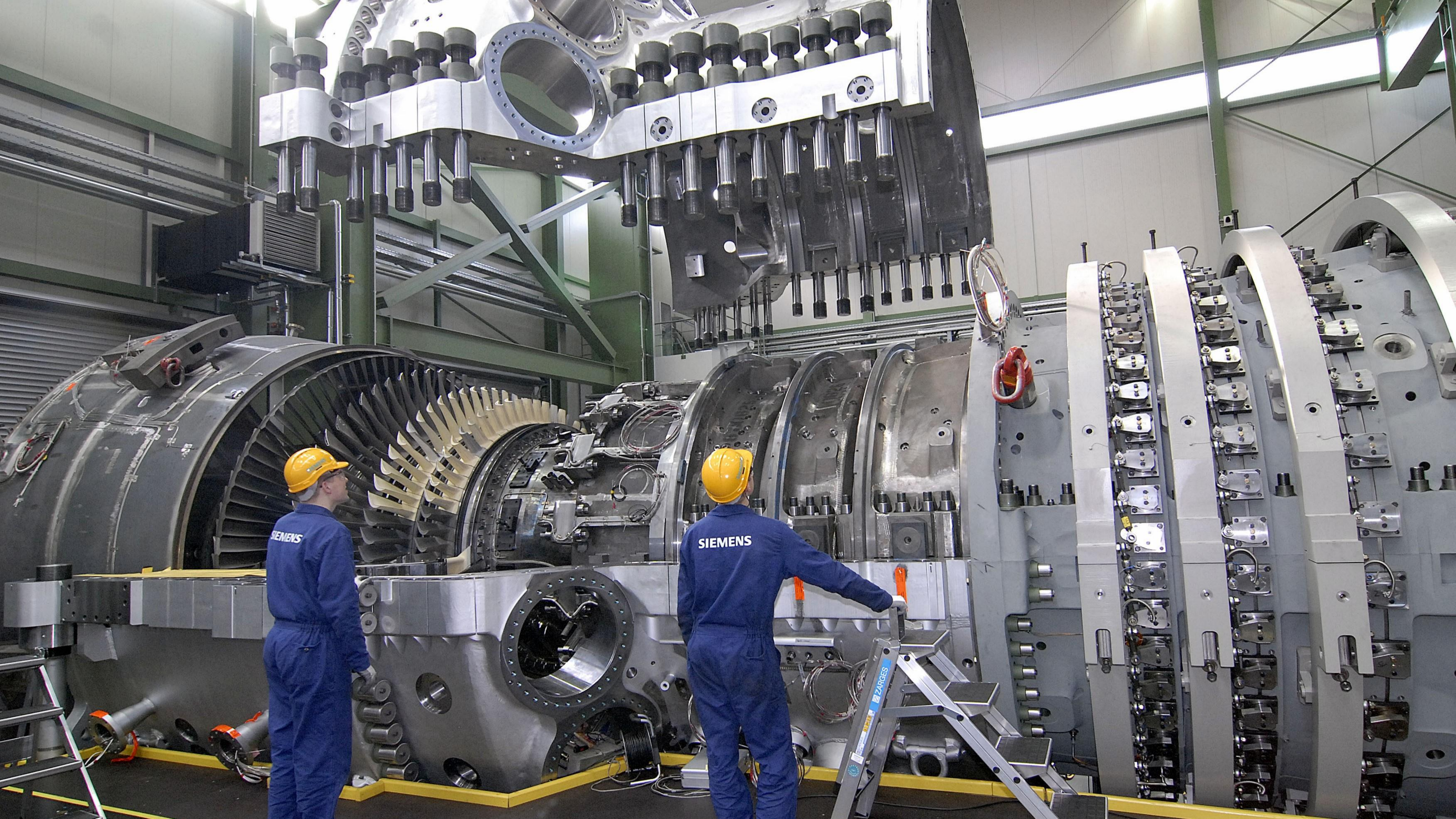


SHARK
SIGHTED
TODAY



ENTER WATER
AT OWN
RISK





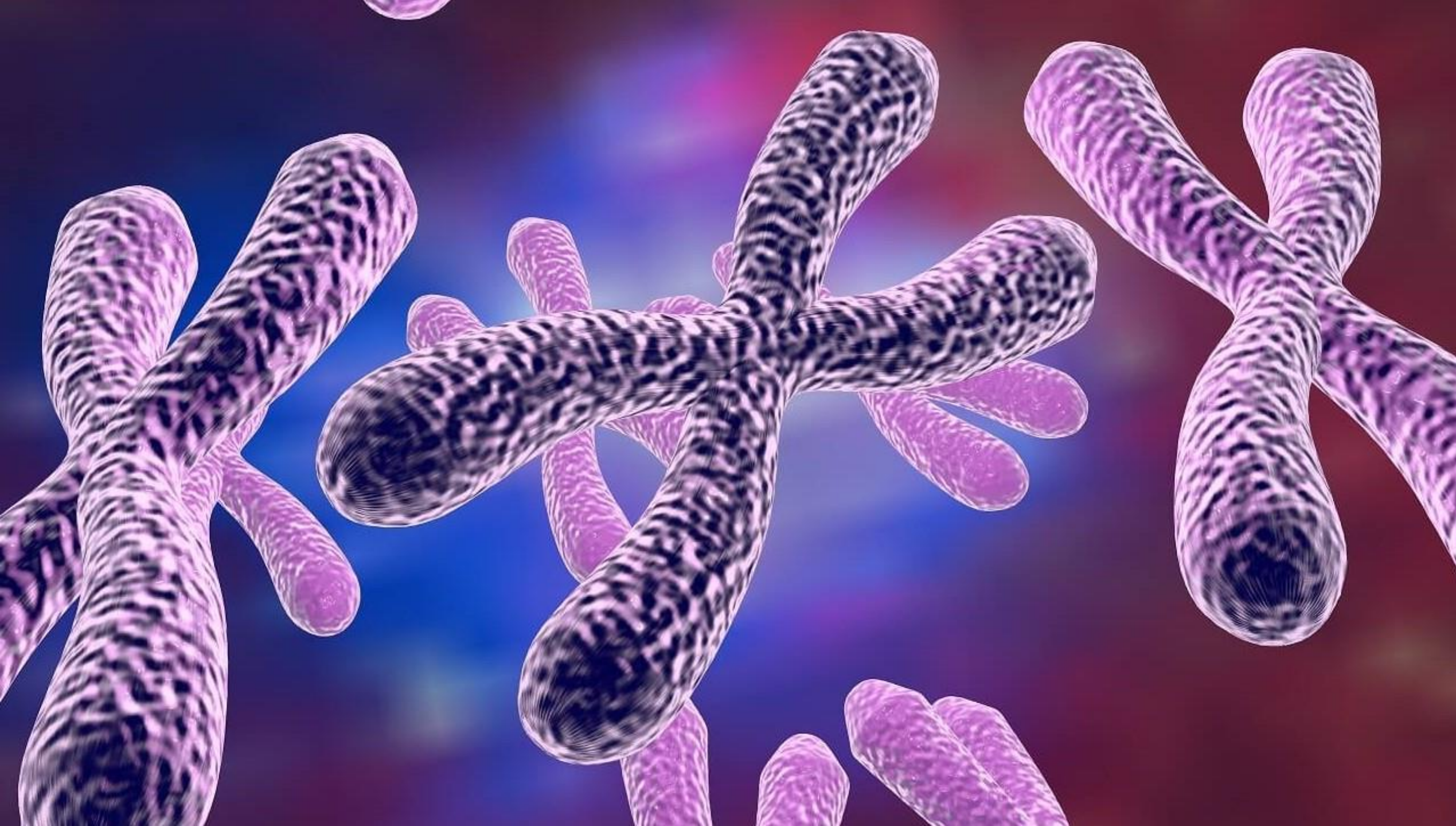
SIEMENS

SIEMENS

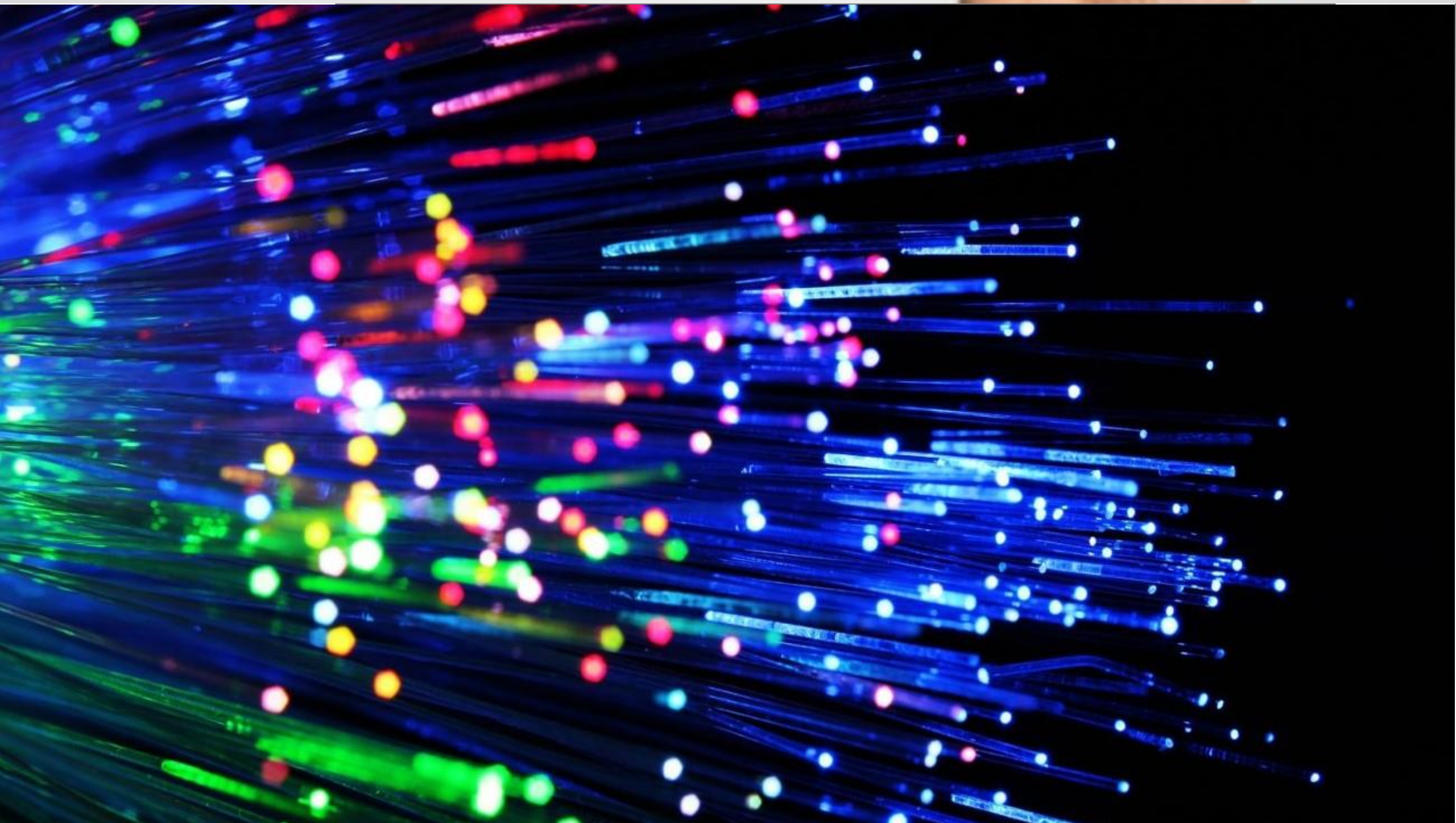
ZARGES







IT'S ALL ABOUT YOU



INVISIBLE WOMEN

EXPOSING
DATA BIAS
IN A WORLD
DESIGNED
FOR MEN

CAROLINE
CRIADO
PEREZ



1. Adoption of modern agriculture:



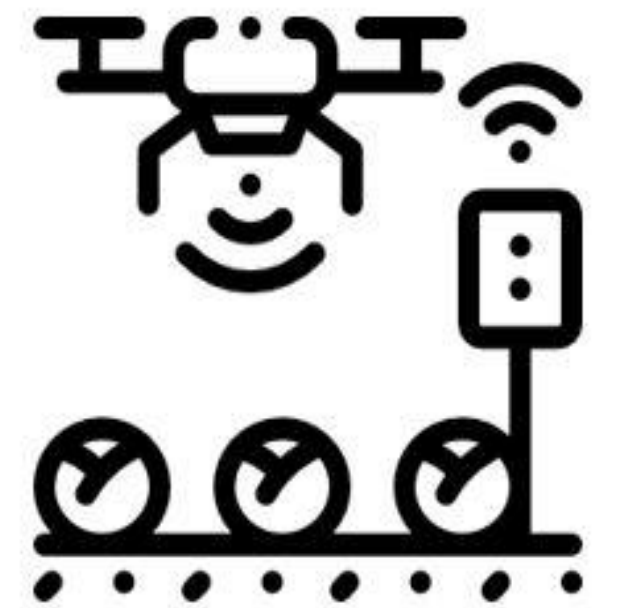
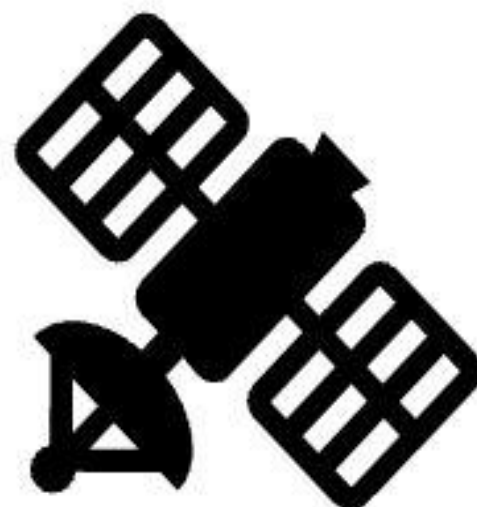
2. Mechanisation post-WW1:

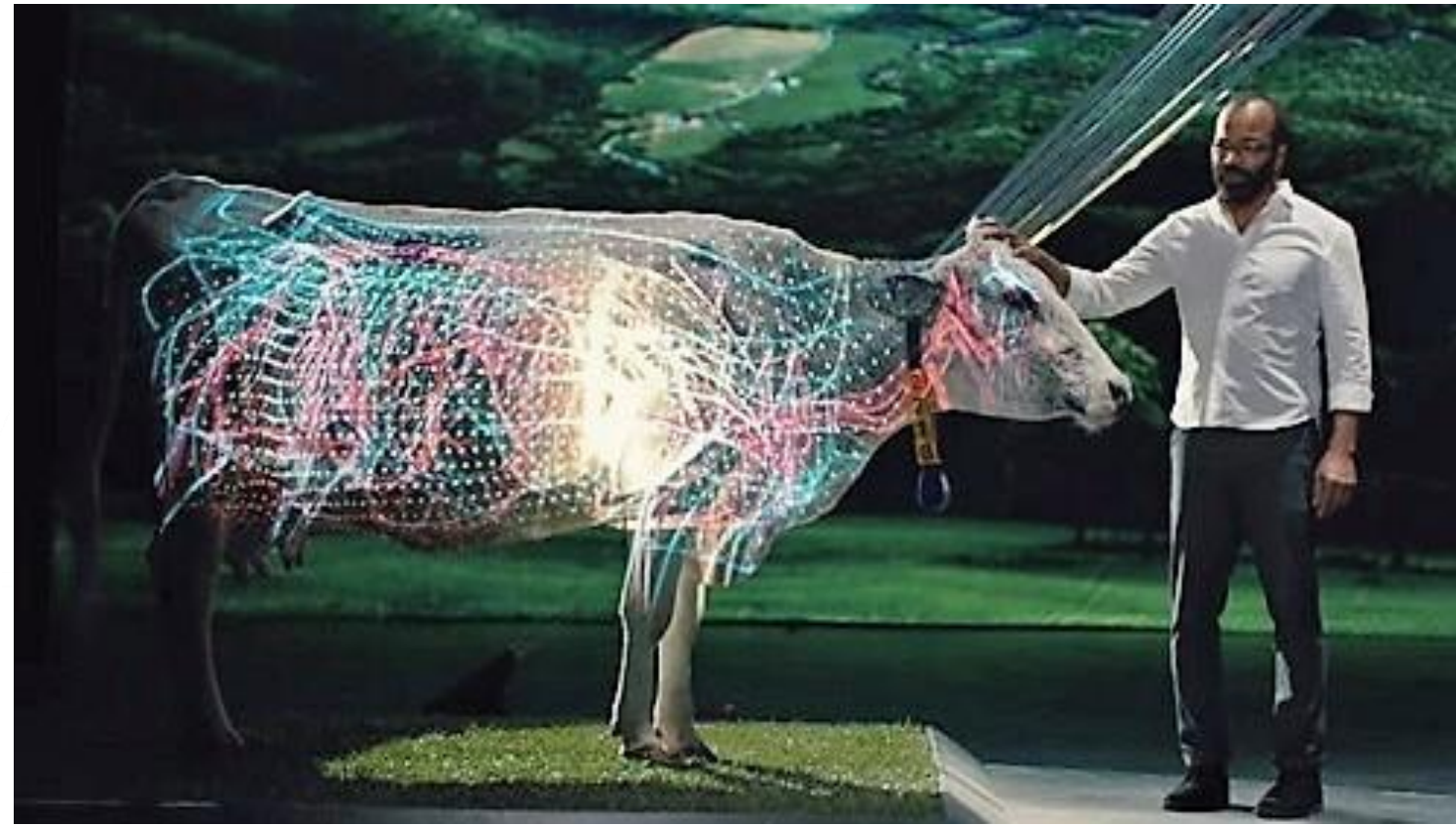


3. The green revolution:



4. The digital revolution





Big Data disillusionment











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Computer
Science



Machine
Learning



Math &
Statistics



Unicorn

Traditional
Software



Traditional
Research



Subject Matter
Expertise



BIG DATA & AI LANDSCAPE 2018

INFRASTRUCTURE

HADOOP ON-PREMISE
cloudera, HortaWorks, MAPR, Pivotal, IBM InfoSphere, bluedata, jethro

HADOOP IN THE CLOUD
aws, Microsoft Azure, Google Cloud, IBM InfoSphere BigInsights, AWS EMR, Databricks, Atscale, CAZENA, CenturyLink

STREAMING / IN-MEMORY
aws, databricks, stream, confluent, GridGain, dataArtisans, hazelcast, TERRACOTTA, InfluxDB, Wavelength Labs

NoSQL DATABASES
Google Cloud, aws, ORACLE, Microsoft Azure, mongoDB, MarkLogic, REDSHIFT, ONTRIA, Aerospike, Couchbase, redislabs, SCYLLA

NewSQL DATABASES
SAP, Cloustra, FLOO, SAP HANA, Oracle Exalogic, SAP Hybris, SAP Commerce, SAP NetWeaver, SAP SuccessFactors, SAP S/4HANA

GRAPH DBs
Neo4j, IBM Graph Analytics, Oracle Graph Analytics

MPP DBs
Vertica, IBM Data Warehouse System, Amazon Redshift, SAP HANA, SAP SuccessFactors, SAP S/4HANA

CLOUD EDW
aws, Google Cloud, Microsoft Azure, Pivotal

DATA TRANSFORMATION
talend, pentaho, alteryx, infatica, Informatica, SAP Data Services, SAP SuccessFactors, SAP S/4HANA

DATA INTEGRATION
SAP Data Services, SAP SuccessFactors, SAP S/4HANA

DATA GOVERNANCE
Informatica, SAP Data Services, SAP SuccessFactors, SAP S/4HANA

MGMT / MONITORING
aws, New Relic, octio, SAP SuccessFactors, SAP S/4HANA

STORAGE
aws, Google Cloud, Microsoft Azure, IBM InfoSphere, SAP SuccessFactors, SAP S/4HANA

CLUSTER SVCS
aws, SAP SuccessFactors, SAP S/4HANA

APP DEV
Kubernetes, SAP SuccessFactors, SAP S/4HANA

CROWD-SOURCING
Amazon Mechanical Turk, SAP SuccessFactors, SAP S/4HANA

HARDWARE
Google TPU, arm, SAP SuccessFactors, SAP S/4HANA

CPU DBs
kinetica, SAP SuccessFactors, SAP S/4HANA

CROSS-INFRASTRUCTURE/ANALYTICS

aws, Google Cloud, Microsoft, IBM, SAP, SAS, 1010DATA, VMware, TIBCO, BRADIA, ORACLE, NetApp, Synlogic, MAPR, cloudera

ANALYTICS

DATA ANALYST PLATFORMS
Microsoft, pentaho, alteryx, guavus, AYASDI, ATTIVO, Datameer, Quid, Incorta, interana, DataStax, Origami, ENDOR, HOG, Scribble, selfboard

DATA SCIENCE PLATFORMS
IBM, KNIME, dataiku, DOMINO, rapidminer, CONTINUUM, ALGORITHMIA, SHAW-WATKINS, SAS

BI PLATFORMS
Microsoft, aws, SAP, Oracle, SAP SuccessFactors, SAP S/4HANA

VISUALIZATION
tableau, Google Cloud, Qlik, SAP SuccessFactors, SAP S/4HANA

MACHINE LEARNING
aws, Google Cloud, H2O, DataRobot, gamalan, ELEPHANT, VISENZE, VERDE, SAP SuccessFactors, SAP S/4HANA

COMPUTER VISION
Microsoft Azure, Amazon Rekognition, clarifai, EVERAI, deepomatic, AT twenty/8

HORIZONTAL AI
Salesforce, SAP SuccessFactors, SAP S/4HANA

SPEECH & NLP
Google Cloud, SAP SuccessFactors, SAP S/4HANA

SEARCH
ORACLE, SAP SuccessFactors, SAP S/4HANA

LOG ANALYTICS
splunk, sumologic, LOGGLY, kibana, SAP SuccessFactors, SAP S/4HANA

SOCIAL ANALYTICS
Hootsuite, SAP SuccessFactors, SAP S/4HANA

WEB / MOBILE / COMMERCE ANALYTICS
Google Analytics, SAP SuccessFactors, SAP S/4HANA

OPEN SOURCE

FRAMEWORK
Apache Hadoop, YARN, TEZ, Mesos, COOP, Spark, Flink, Storm, HIVE

QUERY / DATA FLOW
Spark SQL, Hive, Drill, SAP SuccessFactors, SAP S/4HANA

DATA ACCESS
CouchDB, SAP SuccessFactors, SAP S/4HANA

COORDINATION
talend, SAP SuccessFactors, SAP S/4HANA

STREAMING
Spark, Flink, konga, dLUD, Storm, SAP SuccessFactors, SAP S/4HANA

STAT TOOLS
R, SAS, SAP SuccessFactors, SAP S/4HANA

AI / MACHINE LEARNING / DEEP LEARNING
TensorFlow, theano, Caffe, Microsoft Cognitive Toolkit, OpenAI, DM TK, Keras, pytorch, SAP SuccessFactors, SAP S/4HANA

SEARCH
Elasticsearch, SAP SuccessFactors, SAP S/4HANA

LOGGING & MONITORING
kibana, logstash, SAP SuccessFactors, SAP S/4HANA

VISUALIZATION
Rodeo, SAP SuccessFactors, SAP S/4HANA

COLLABORATION
ANAconda, SAP SuccessFactors, SAP S/4HANA

SECURITY
Apache Hadoop, KNOX, SAP SuccessFactors, SAP S/4HANA

DATA SOURCES & APIs

HEALTH
Apple, VALIDIC, practice fusion, fitbit, GARMIN, kinso

IoT
GE Digital, SAP SuccessFactors, SAP S/4HANA

FINANCIAL & ECONOMIC DATA
Bloomberg, Thomson Reuters, Dow Jones, SAP Capital IQ, Xignite, Quandl, SAP SuccessFactors, SAP S/4HANA

AIR / SPACE / SEA
Orbital Insight, Planet, Airbots, SAP SuccessFactors, SAP S/4HANA

PEOPLE / ENTITIES
Acxiom, Experian, Epsilon, SAP SuccessFactors, SAP S/4HANA

LOCATION INTELLIGENCE
Foursquare, SAP SuccessFactors, SAP S/4HANA

OTHER
Qualtrics, DATA.OOV, Enigma, CRUX, SAP SuccessFactors, SAP S/4HANA

DATA RESOURCES

DATA SERVICES
Palantir, SAP SuccessFactors, SAP S/4HANA

INCUBATORS & SCHOOLS
Galvanize, SAP SuccessFactors, SAP S/4HANA

RESEARCH
Facebook Research, MIRI, SAP SuccessFactors, SAP S/4HANA

APPLICATIONS - ENTERPRISE

SALES
Chorus, Insidesales.com, conversica, clar, Avaso, tactai, fusio, hichives, GROOPE

MARKETING - B2B
Radius, App Assis, EVERSTING, Lattice, HUBSPOT, Gsense, subrator, Detail, ENGAGIO, mipe

MARKETING - B2C
Zeta, bloomreach, SendGrid, BlueYonder (Persado), Bluecore, ACTIONIQ, SAILTHRU, BLUECORE, QUANTIPID, Imparcticle, Amperio, Savvii, Simons, Lytix

CUSTOMER SERVICE
MEDALLIA, zendesk, CLARABRIDGE, Gainsight, NO DATA, DigitalGenius, ahniti, AUTOMOT, frame, CROICO

HUMAN CAPITAL
SAP SuccessFactors, SAP S/4HANA

LEGAL
Ravel, SAP SuccessFactors, SAP S/4HANA

FINANCE
Finaplan, ZUORA, SAP SuccessFactors, SAP S/4HANA

ENTERPRISE PRODUCTIVITY
Slack, Oracle, SAP SuccessFactors, SAP S/4HANA

BACK OFFICE AUTOMATION
UiPath, SAP SuccessFactors, SAP S/4HANA

SECURITY
Tanium, Cylance, SAP SuccessFactors, SAP S/4HANA

APPLICATIONS - INDUSTRY

ADVERTISING
Apploous, SAP SuccessFactors, SAP S/4HANA

EDUCATION
SAP SuccessFactors, SAP S/4HANA

GOVERNMENT
OpenText, SAP SuccessFactors, SAP S/4HANA

REAL ESTATE
Redfin, SAP SuccessFactors, SAP S/4HANA

FINANCE - INVESTING
Kensico, SAP SuccessFactors, SAP S/4HANA

FINANCE - LENDING
OnDeck, Affirm, SAP SuccessFactors, SAP S/4HANA

INSURANCE
Aflac, SAP SuccessFactors, SAP S/4HANA

HEALTHCARE
SAP SuccessFactors, SAP S/4HANA

LIFE SCIENCES
SAP SuccessFactors, SAP S/4HANA

TRANSPORTATION
Uber, Tesla, SAP SuccessFactors, SAP S/4HANA

AGRICULTURE
SAP SuccessFactors, SAP S/4HANA

COMMERCE
SAP SuccessFactors, SAP S/4HANA

INDUSTRIAL
SAP SuccessFactors, SAP S/4HANA



Head to
Heart to
Hands



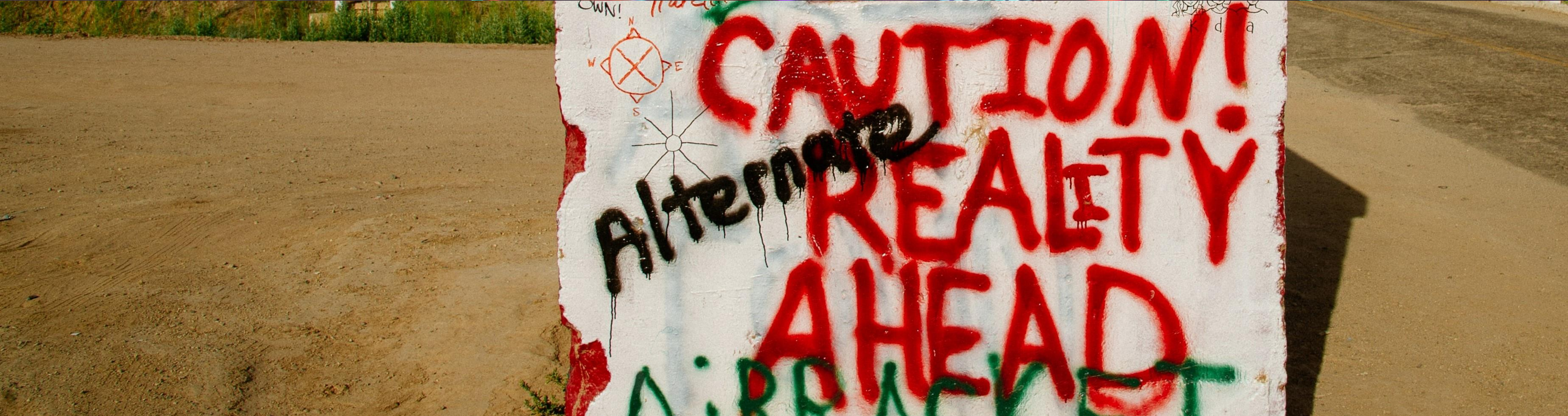
C'est la rentrée







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Agrimetrix

THE CATALYST FOR CHANGE

