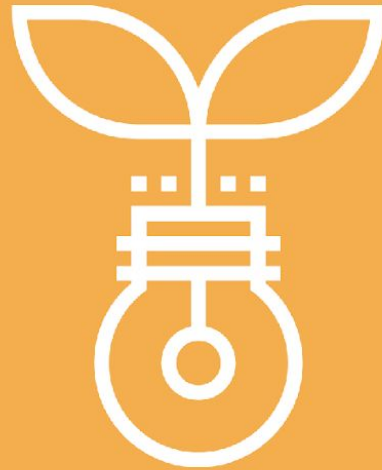


# ***How ChatGPT impacts business***

***Keynote Hogeschool Rotterdam***

**Tomorrow delivered Today**

*Digital people, AI technology*



**D I G I T A L   S U N D A I**

# Introducing Robin Zondag



## Digital Sundai ( 3 years)

- Founder of Digital Sundai
- Boutique consultancy *Business & AI*
- Own people & eco-system
- Some clients: ABN AMRO, Siemens, VodafoneZiggo, ASML

## Atos (22 years)

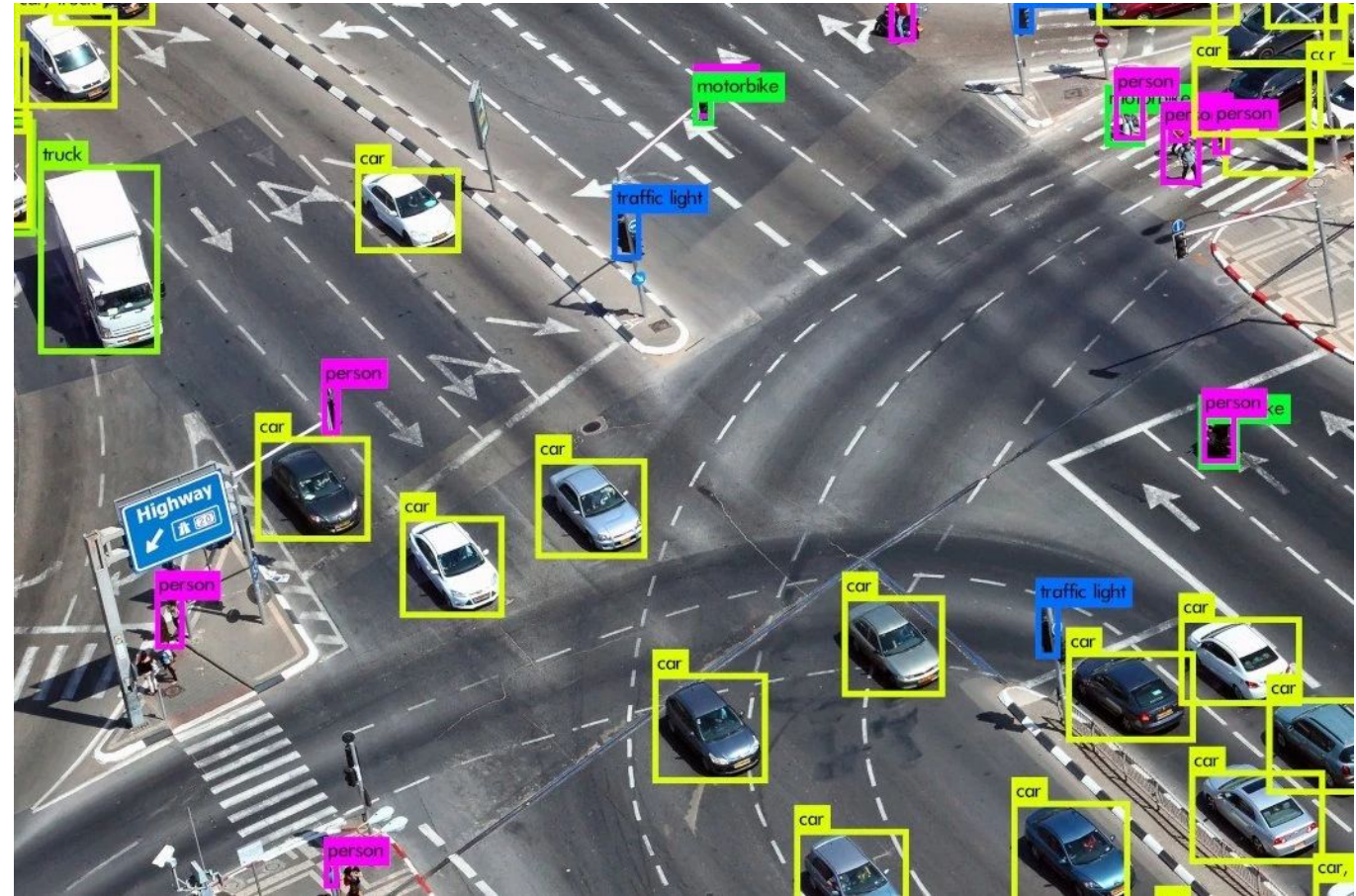
- Global head of Atos- Google AI labs
- Partner Global AI & Analytics
- Partner Digital Transformation Benelux & the Nordics
- Business Consultant

# Traditional AI already achieved a lot .....

## “Traditional” AI:

describe, predict, or prescribe something  
based on existing content:

- recognize patterns,
- predict client churn,
- forecast product demand,
- next-best-product recommendations...





# .....**GENERATIVE AI** is a game changer

## **Generative AI:**

algorithms that can  
**create new content**



## **LLMs (like ChatGPT):**

one type of generative AI;  
generate novel combinations of **text in the  
form of natural-sounding language.**



# Generative AI delivers new content in many forms

## TEXT

Content writing, translation, answer to questions, scoring close to the top 10 percent of test takers in numerous tests, write articles, poetry, scripts, chatbots, search, analysis and synthesis...

## CODE

Code generation, application prototype and design, data set generation

## 3D

3D object generation, product design and discovery

## AUDIO

Text to voice generation, sound creation, audio editing, new music tracks, sound effects, and voice acting

## VIDEO

Video creation, video editing, video translations and adjustments, face swap and adjustments

## IMAGE

Stock image generator, image editor, winning digital-art awards, portrait based on a person's face, a new landscape based on existing scenery

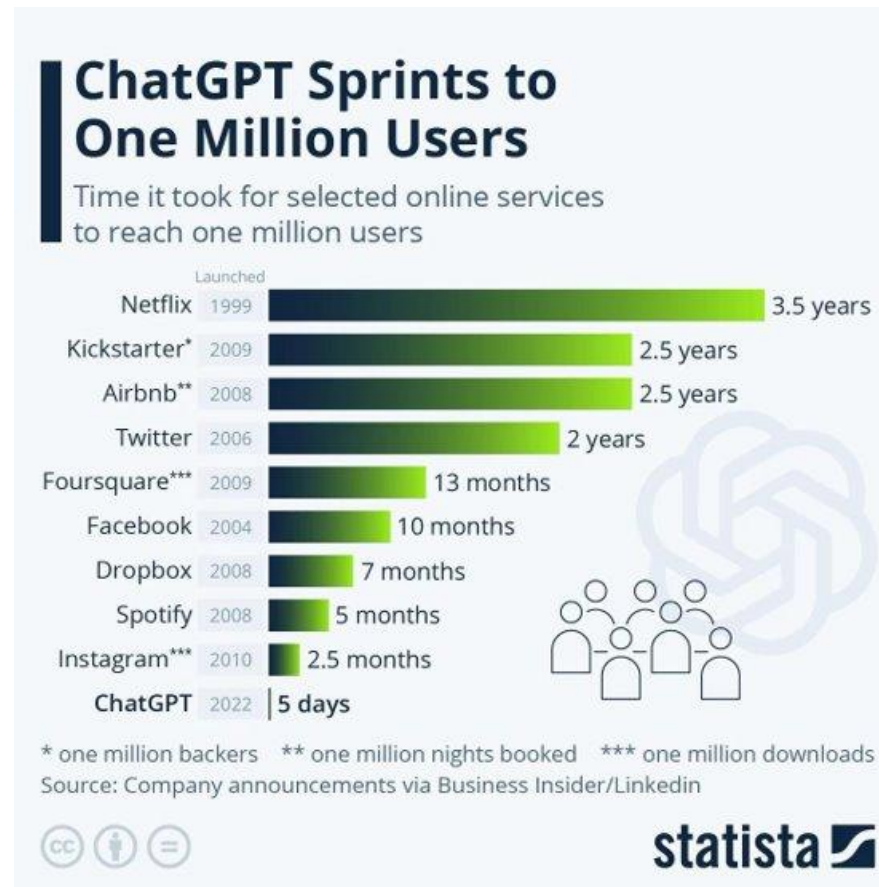




# ChatGPT

## LLM trained by OpenAI (November 2022)

- AI-powered chatbot using NLP
- Estimated value: US \$29 billion
- Fastest-growing app of all time



# Early Providers of Generative AI

	Text	Image	Audio or music	3-D	Video	Protein structures or DNA sequences
Microsoft			VALL-E	RODIN Diffusion	GODIVA	MoLeR
OpenAI <sup>4</sup>	GPT-4	DALL-E 2	Jukebox	Point-E		
Meta	LLaMA	Make-a-scene	AudioGen	Builder Bot	Make-a-video	ESMFold
Google/DeepMind	LaMDA	Imagen	MusicLM	DreamFusion	Imagen Video	AlphaFold2
Stability AI	StableLM	Stable Diffusion 2	Dance Diffusion			LibreFold
Amazon	Lex		DeepComposer			
Apple				GAUDI		
NVIDIA	MT-NLG	Edify		Edify	Edify	MegaMolBART
Cohere	Family of LLMs					
Anthropic	Claude					
AI21	Jurassic-2					

■ Closed source<sup>1</sup>
■ Closed source, available through APIs<sup>2</sup>
■ Open source<sup>3</sup>



# Generative AI comes with risks which need to be managed



**Risks**



**Governance**





# Initial Impact of Generative AI in Business



## Customer service

Natural-sounding, personalized chatbots, virtual assistants



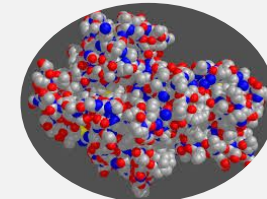
## Marketing & Sales

SEO optimization  
Generate content for campaigns  
30% of outbound marketing messages in 2 years



## IT

Write / explain code  
Productivity increase more than 50%



## Product development

Rapid product designs:  
From months to weeks!  
Innovative, cheaper, efficient products



## Legal & risk

Summarize changes  
Answer questions  
Pulling from legal documents  
Drafting reports

---

## Gen App Builder

helps you easily build next generation  
experiences in minutes



# ChatGPT Business Use Case Example: Explaining Codes with OpenAI Playground

The screenshot displays the OpenAI Playground interface. At the top, a red rectangle highlights the 'Explain code' button. Below it, a code editor contains a Python function named `state(self)`. The function initializes a state dictionary, iterates over lines in a file, loads each line as JSON, and updates the state if the event is a 'submit' with 'success'. The function returns the state. A red oval highlights the AI's response, which explains the code's purpose and lists three steps: creating a directory, checking for newline termination, and writing a JSON object. The right sidebar shows settings for Mode, Model (code-davinci-002), Temperature (0), Maximum length (64), and Stop sequences. The bottom bar includes a 'Cancel' button, a '293' character count, 'Plain text' format, and 'Top P' probability.

**Playground**

Explain code

Save View code Share ...

```
21
22     def state(self):
23         state = {"complete": set(), "last": None}
24         for line in open(self.path):
25             event = json.loads(line)
26             if event["type"] == "submit" and event["success"]:
27                 state["complete"].add(event["id"])
28                 state["last"] = event
29         return state
30
31
32 Here's what the above class is doing:
33 1. It creates a directory for the log file if it doesn't exist.
34 2. It checks that the log file is newline-terminated.
35 3. It writes a newline-terminated JSON object to
```

Mode

Model: code-davinci-002

Temperature: 0

Maximum length: 64

Stop sequences: Enter sequence and press Tab

Cancel 293 Plain text Top P 1

# ChatGPT Business Use Case Example: Codes for Website and App Building

Hello! How can I assist you today? Do you have a specific request for creating a code for an app?

...

Yes, I need help creating a code for an app that can track my daily water intake.

Sure, I can help with that! Here's a [Python code](#) for a simple command-line app that can track your daily water intake:

```
python Copy

import datetime

def main():
    # Get today's date
    today = datetime.date.today()

    # Load existing water intake data from file
    try:
        with open("water_intake.txt", "r") as f:
            data = f.read().splitlines()
            last_date, last_intake = data[-1].split(",")
            last_date = datetime.datetime.strptime(last_date,
"%Y-%m-%d").date()
            if last_date == today:
                today_intake = int(last_intake)
            else:
                today_intake = 0
    except (FileNotFoundError, ValueError):
        today_intake = 0
```

For my website, can you write an HTML code for a contact details form with the following fields: name, email address, and mobile number?

Sure, here's an example HTML code for a [contact form](#) with fields for name, [email address](#), and [mobile number](#):

```
routeros Copy

<form action="submit-form.php" method="post">
  <label for="name">Name:</label>
  <input type="text" id="name" name="name" required>

  <label for="email">Email address:</label>
  <input type="email" id="email" name="email" required>

  <label for="mobile">Mobile number:</label>
  <input type="tel" id="mobile" name="mobile" pattern="[0-9]{10}" required>
  <small>Format: 10 digits, no spaces or dashes</small>

  <input type="submit" value="Submit">
</form>
```





## Create new content

### Imagery requirements

Granola bar ingredients on table

### Content requirements

We want to create a multi-media campaign that highlights the simple ingredients and sustainable sourcing practices from our most popular granola bar.

Generate



### Targeted content generation

User input analysis  
Industry-specific adaptation



### Content creation

Social media posts  
Email campaigns  
Advertisements



### Personalized engagement

Real-time content editing  
Streamlined approval process

## Imagery requirements

Granola bar ingredients on table. Add flour in the background.

## Content requirements

We want to create a multi-media campaign that highlights the simple ingredients and sustainable sourcing practices from our most popular granola bar.

Generate

Preview Bl

## Images



# Instagram


Instagram CUSTOMIZE

## Images




## Captions


Our most popular granola bar is made with only 6 simple ingredients: organic oats, organic almonds, biodynamic local honey, organic whole grain flour, dried organic cranberries, and free-range eggs. #cymbalgranolabars #delicious #sustainable

 Copy

Looking for a delicious and sustainable snack? Look no further than Cymbal's new granola bar! Made with only six simple ingredients, our granola bar is the perfect snack for the conscious consumer. Plus, our packaging is made out of 100% compostable materials. So not only will you be enjoying a delicious snack, but you'll also be helping the environment. #cymbalgranolabar #sustainablesnacking #consciousconsumer #deliciousandsustainable

 Copy

Our granola bar is made with only 6 simple ingredients and sustainably sourced from local farmers! #granola #granolabar #organic #sustainable #local #food #healthy #snack #yum

 Copy



# Email

Email [CUSTOMIZE](#)

## Images



## Captions

Hi [name],

I wanted to reach out and tell you a little bit about our granola bars. We believe in keeping things simple, which is why our bars are made with only six simple ingredients: organic oats, organic almonds, biodynamic local honey, organic whole grain flour, dried organic cranberries, and free-range eggs. We also believe in sustainability. That's why our packaging is made out of 100% compostable materials, and we use rainwater...

 Copy

Hi,


At Cymbal, we believe that good food should be good for you and good for the planet. That's why we use only the simplest, most sustainable ingredients in our granola bars.

Our oats and almonds are grown using rainwater harvesting to reduce the need for irrigation. We use solar energy to power our irrigation systems and other farm equipment. And wherever we can...

 Copy

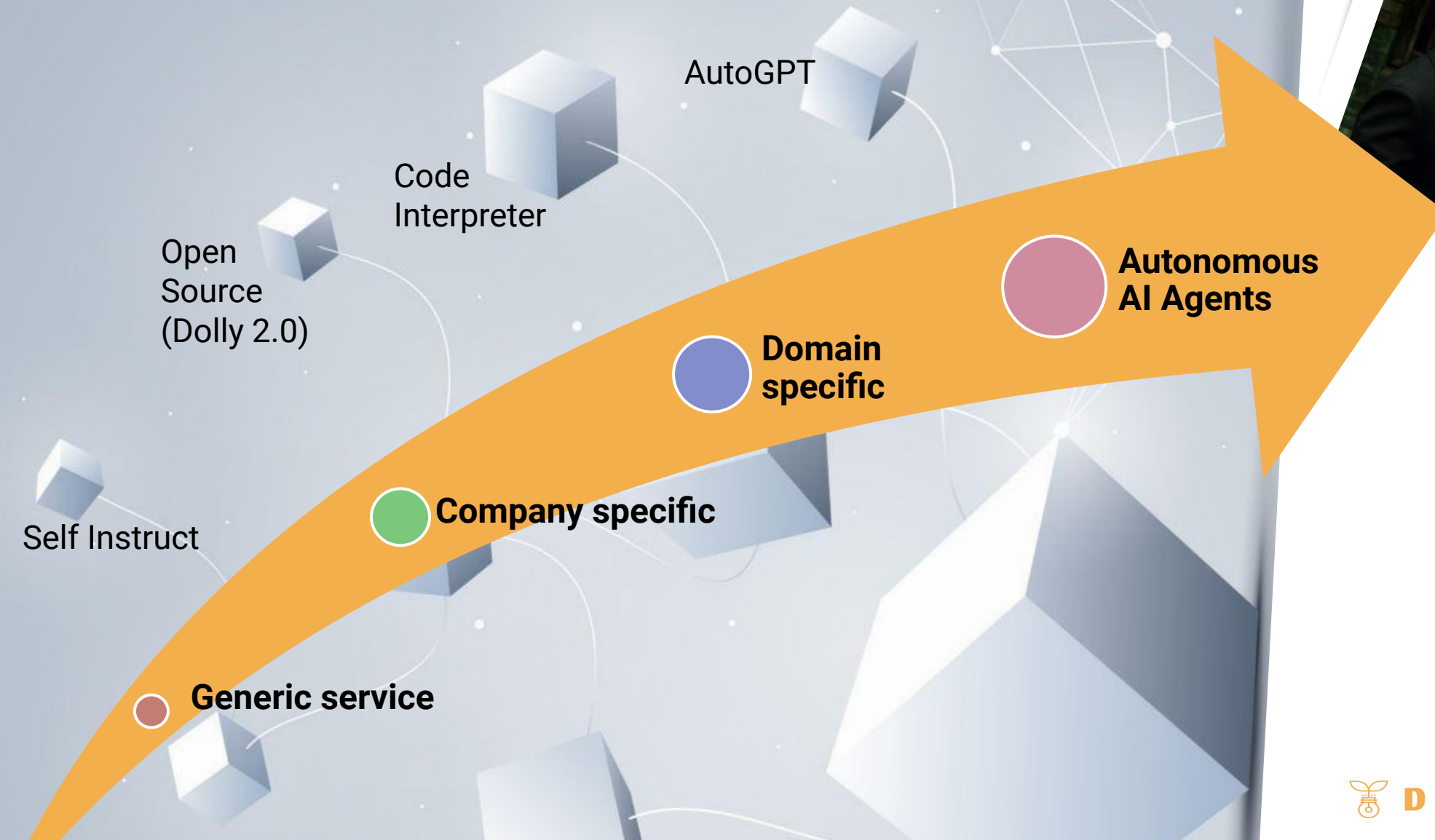
Hi there,

We're excited to announce that our most popular granola bar is now even better! We've made some changes to the recipe to make it even more sustainable and delicious. Here's what's new: We're now using only 6 simple ingredients: organic oats, organic almonds, biodynamic local honey, organic whole grain flour, dried organic cranberries, and free-range eggs...

 Copy



# Our take on the future of Generative AI





**D I G I T A L   S U N D A I**