

01

Computer Security

Enhancing protections through multiple assets

02

Networks

Solidifying connections and communications

03

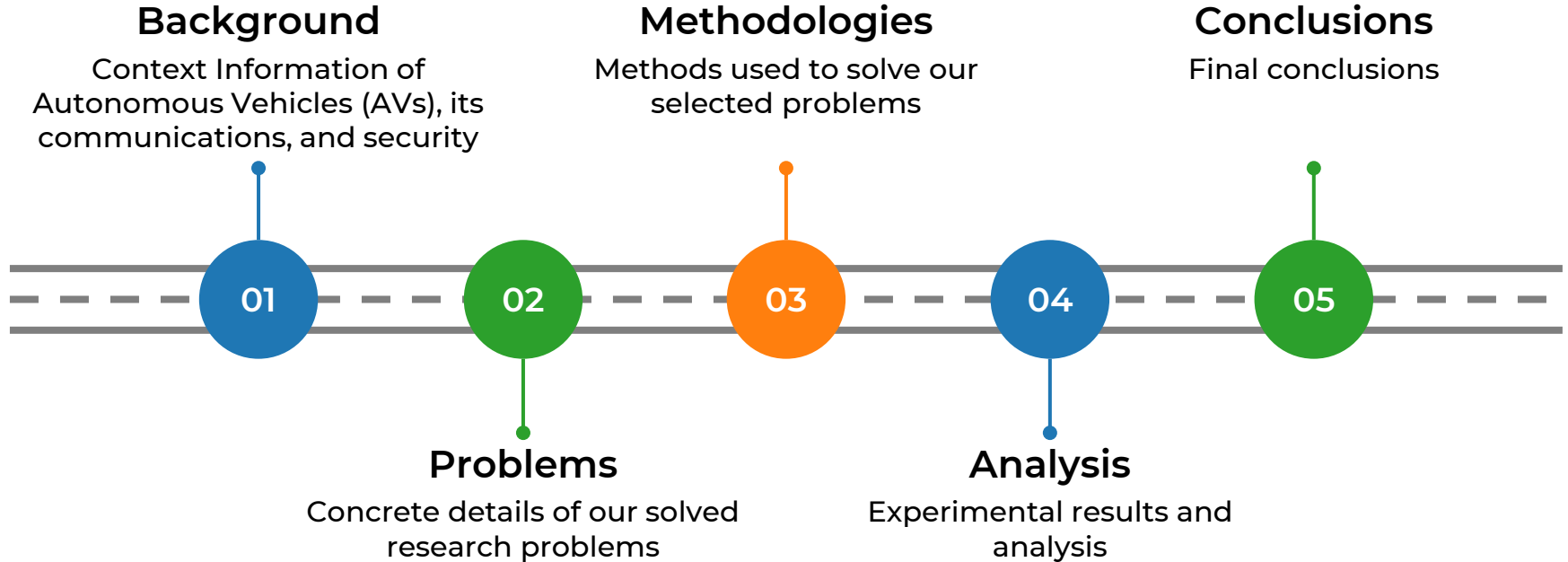
Machine Learning

Provide AI-judged decisions

V2X Message Misbehavior Detections: Novel Methods

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Section 1 - Background



1. Autonomous driving overview.
2. V2X network communications.
3. AV security environments, assets, and threats.
4. AI applications under (**MDS**) Misbehavior Detection System

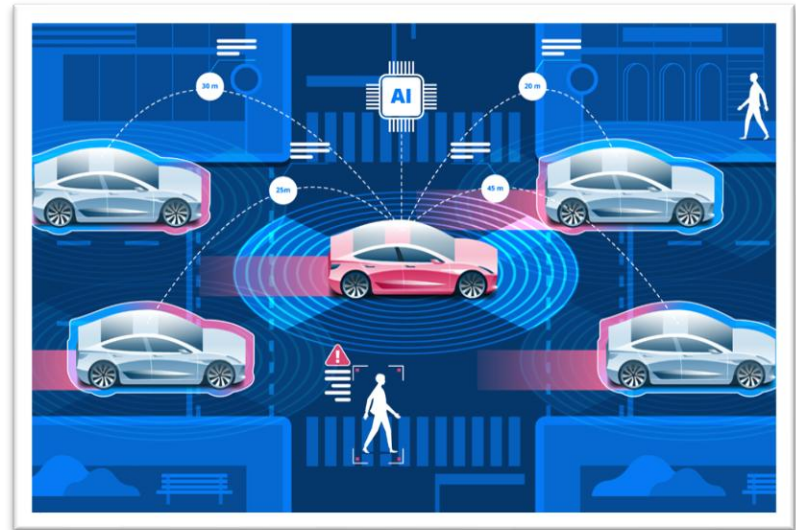


Autonomous Vehicles (AVs) Overview

Autonomous Vehicles (AVs) is an emergent research field, allowing the vehicle's autonomous driving with partial or without human involvement.

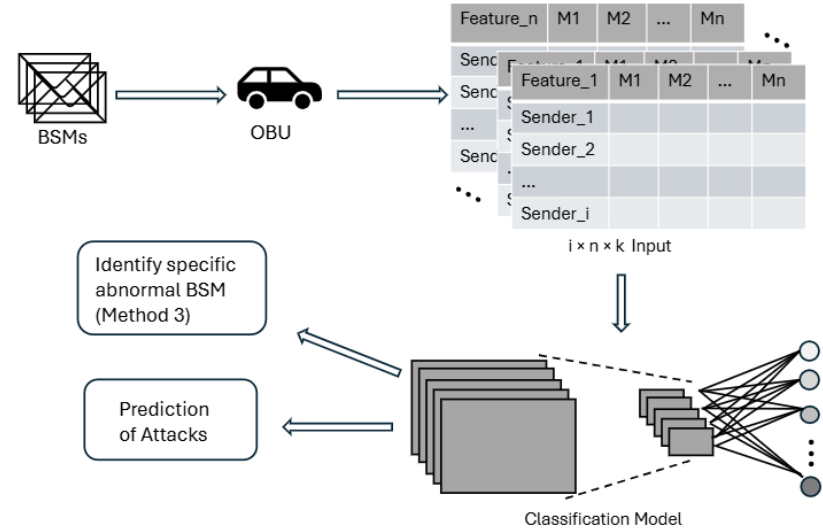
Several **benefits** involves:

1. Enable driving without drivers
2. Increase driving efficiency
3. Reduction of traffic congestions
4. Replacing of partial driving duties, triggering drivers' concentrations on other driving duties



Communications of AVs

Vehicle networks



Security Environment of AVs

Autonomous Driving System have these assets:

- 1.
- 2.
- 3.

Security Threats (Attacks) of AVs

Misbehavior Detection Systems (MDSs) of AVs

Section 2 – The Target Research Problem

Section 2 – Problems (Aims to solve)

Roadmap Infographics

Jupiter is a gas giant and the biggest planet in the Solar System. It was named after the god

Venus has a beautiful name and is terribly hot, even hotter than Mercury

Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

Sep

Oct

Nov

Dec

Initiative 01

Initiative 02

Initiative 03

Initiative 01

Earth is the third planet from the Sun and the only one that harbors life in the Solar System

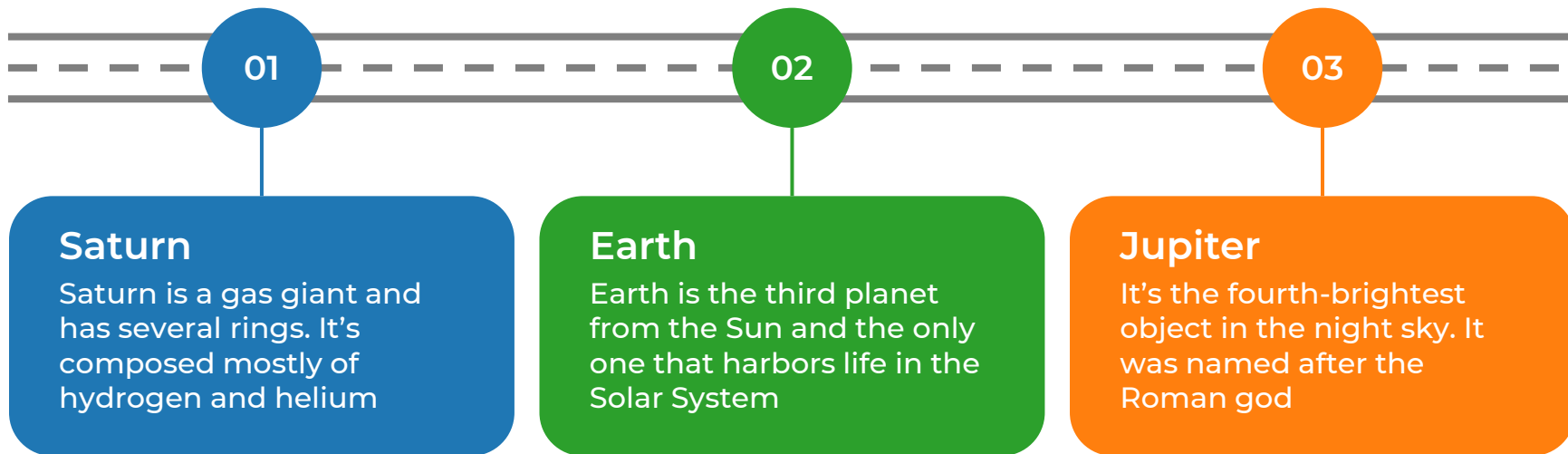
Initiative 02

Saturn is a gas giant and has several rings. It's composed mostly of hydrogen and helium

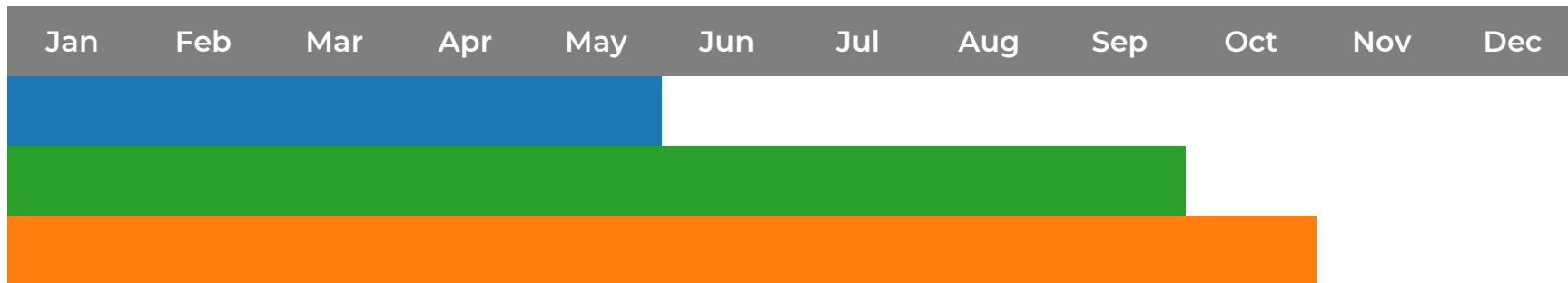
Initiative 03

Despite being red, Mars is actually a cold place. It's full of iron oxide dust

Roadmap Infographics



Roadmap Infographics



00th

Venus is the second planet from the Sun

00th

Earth is the third planet from the Sun

00th

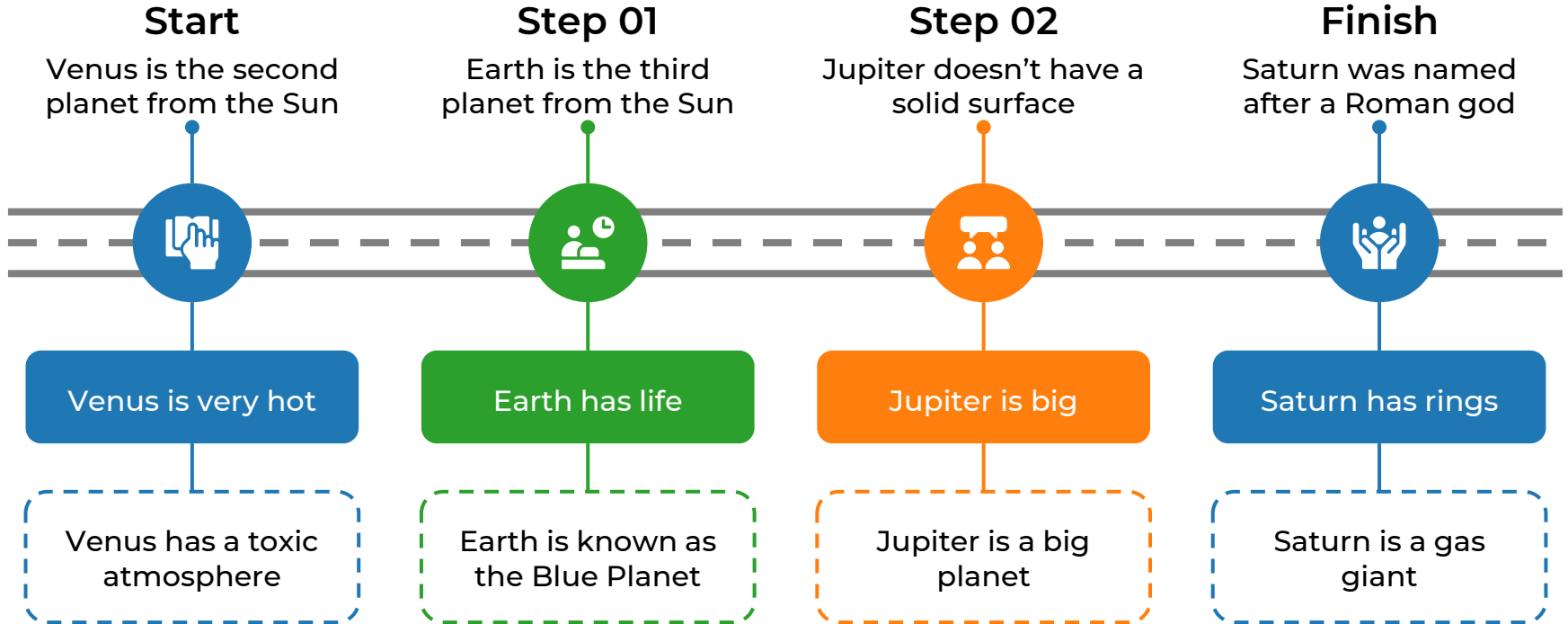
Jupiter doesn't have a solid surface

- Initiative 01
- Initiative 02
- Initiative 03

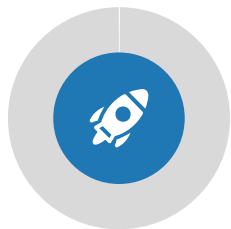
- Jupiter is a gas giant and the biggest planet in the Solar System

- Venus has a beautiful name and is terribly hot, even hotter than Mercury

Roadmap Infographics



Roadmap Infographics



100%

Initiative 01



25%

Initiative 02



75%

Initiative 03

Planning progress

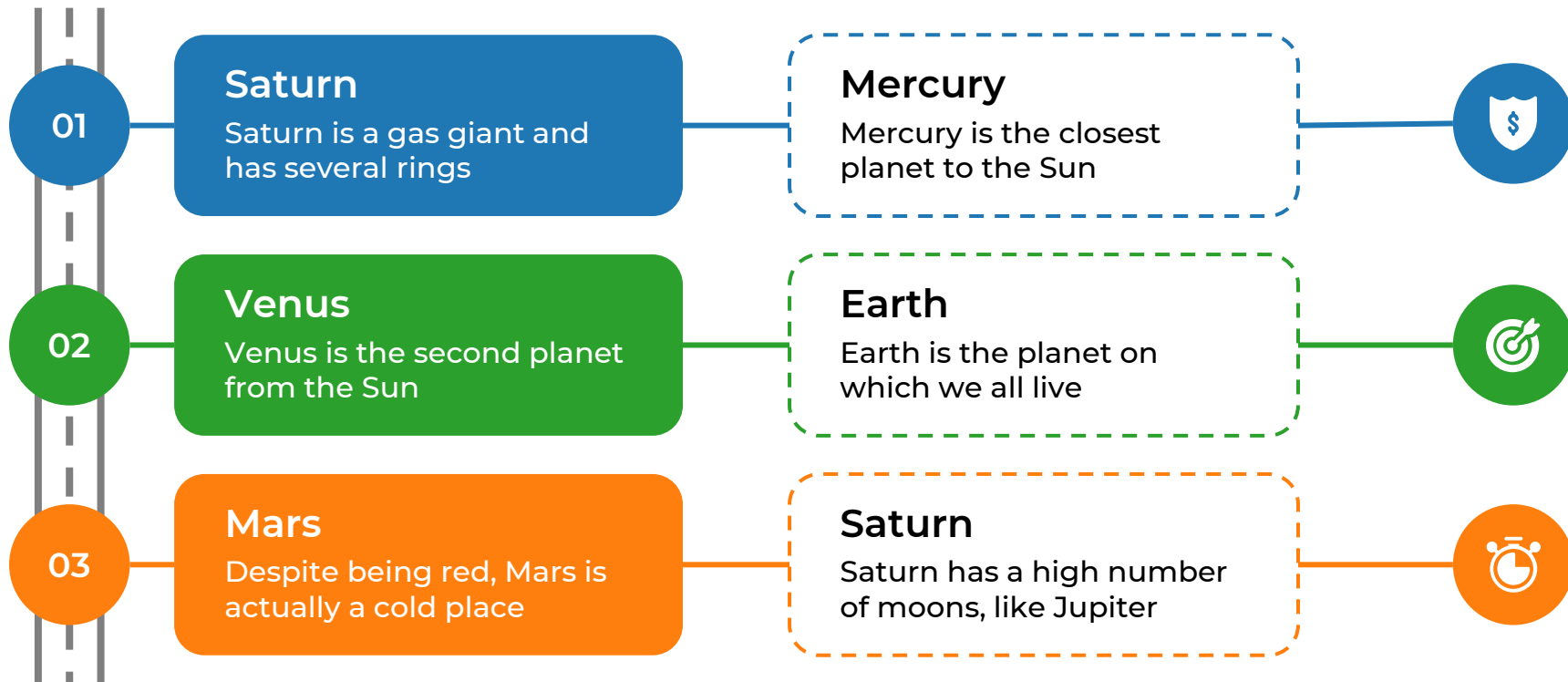
Do you know what helps you make your point clear? Lists like this one:

- They're simple
- You can organize your ideas clearly
- You'll never forget to buy milk!

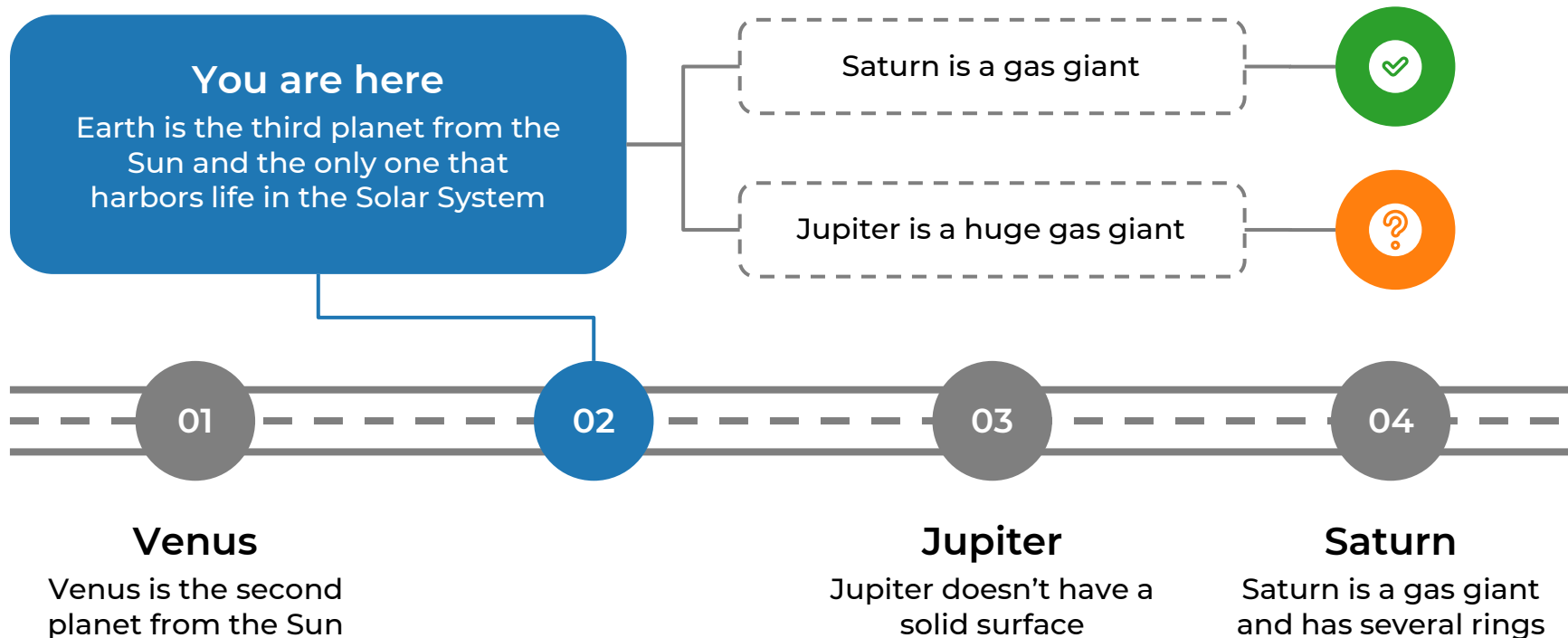
The audience won't miss the point of your presentation ever again

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

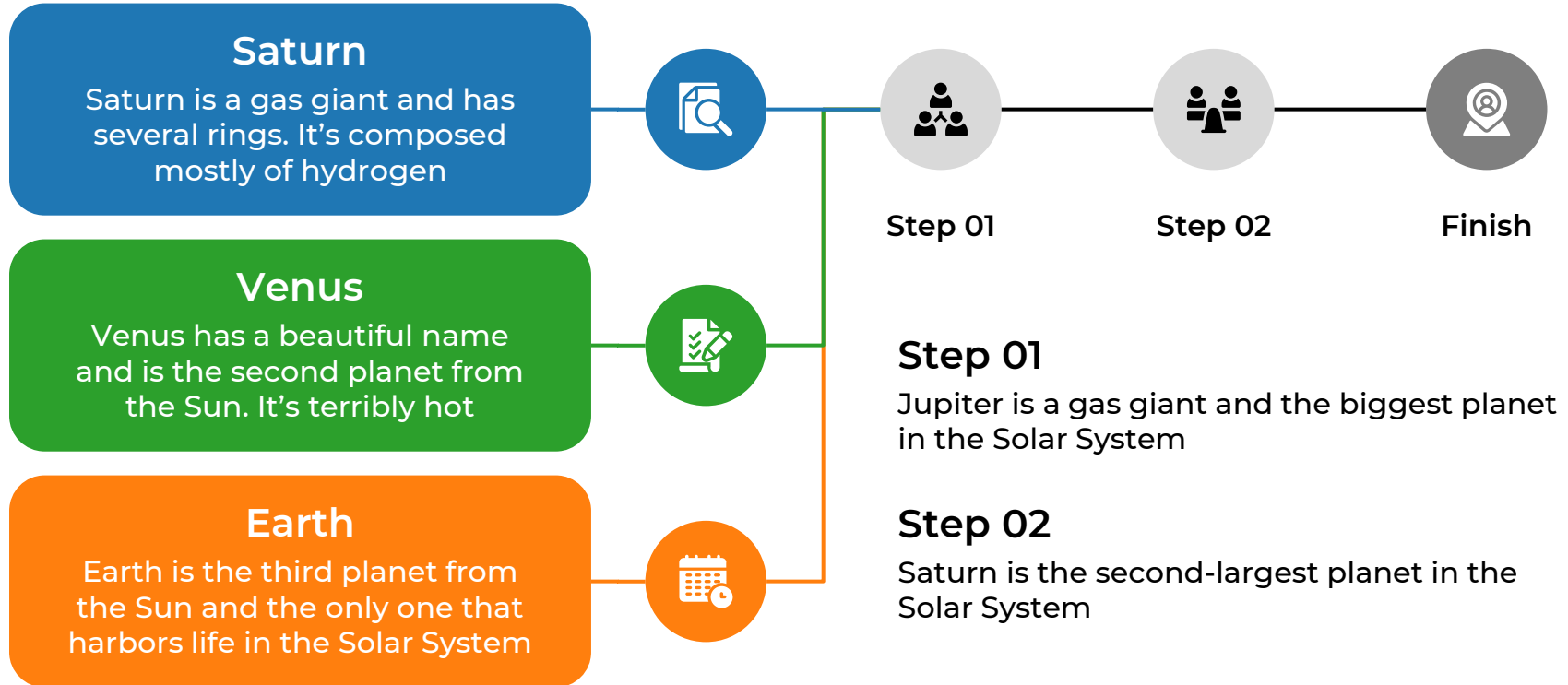
Roadmap Infographics



Roadmap Infographics



Roadmap Infographics



Roadmap Infographics

