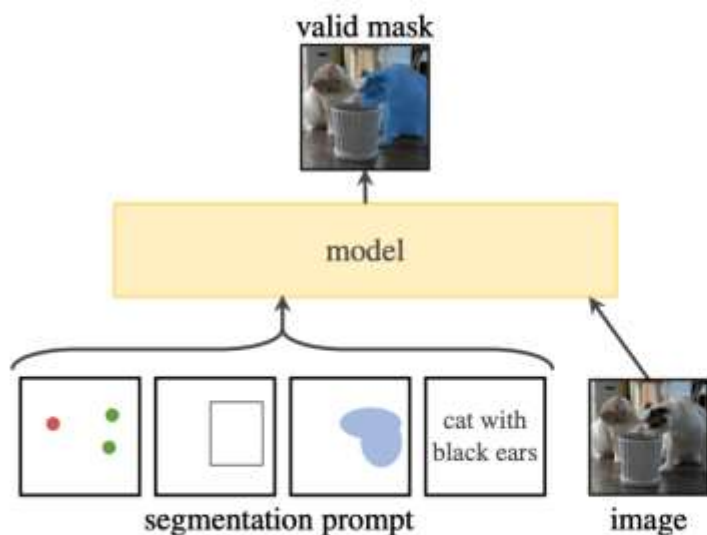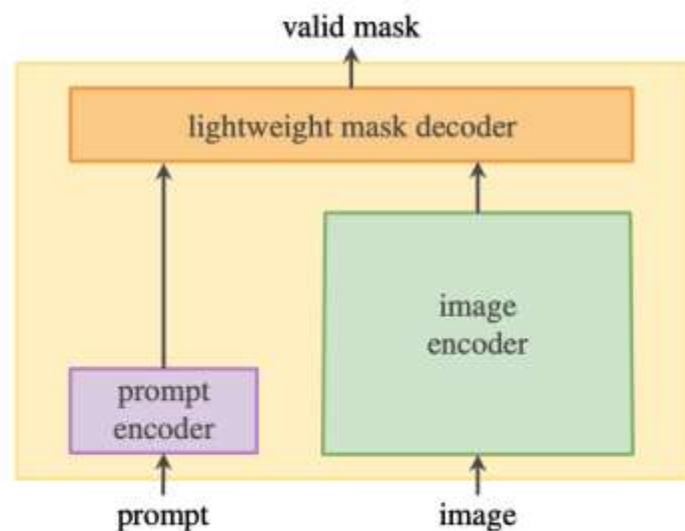# Segment Anything

Alexander Kirillov[1,2,4]   Eric Mintun[2]   Nikhila Ravi[1,2]   Hanzi Mao[2]   Chloe Rolland[3]   Laura Gustafson[3]

Tete Xiao[3]   Spencer Whitehead   Alexander C. Berg   Wan-Yen Lo   Piotr Dollár[4]   Ross Girshick[4]

[1]project lead   [2]joint first author   [3]equal contribution   [4]directional lead
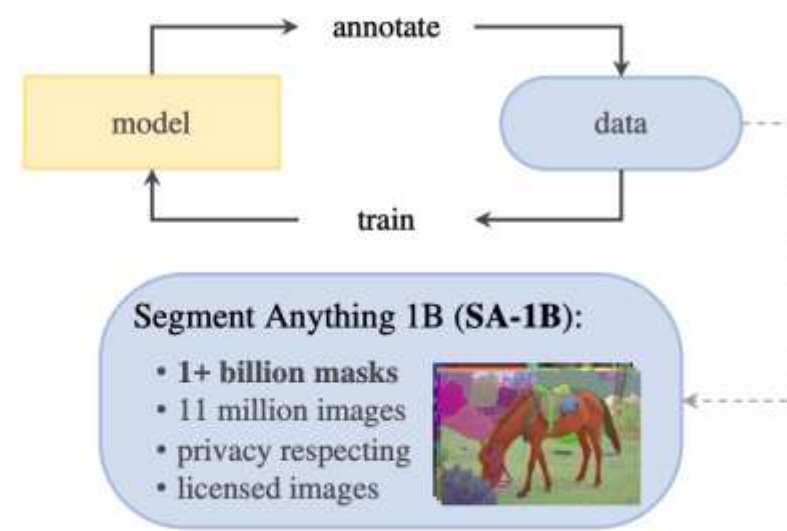
Meta AI Research, FAIR

(a) **Task**: promptable segmentation   (b) **Model**: Segment Anything Model (SAM)   (c) **Data**: data engine (top) & dataset (bottom)
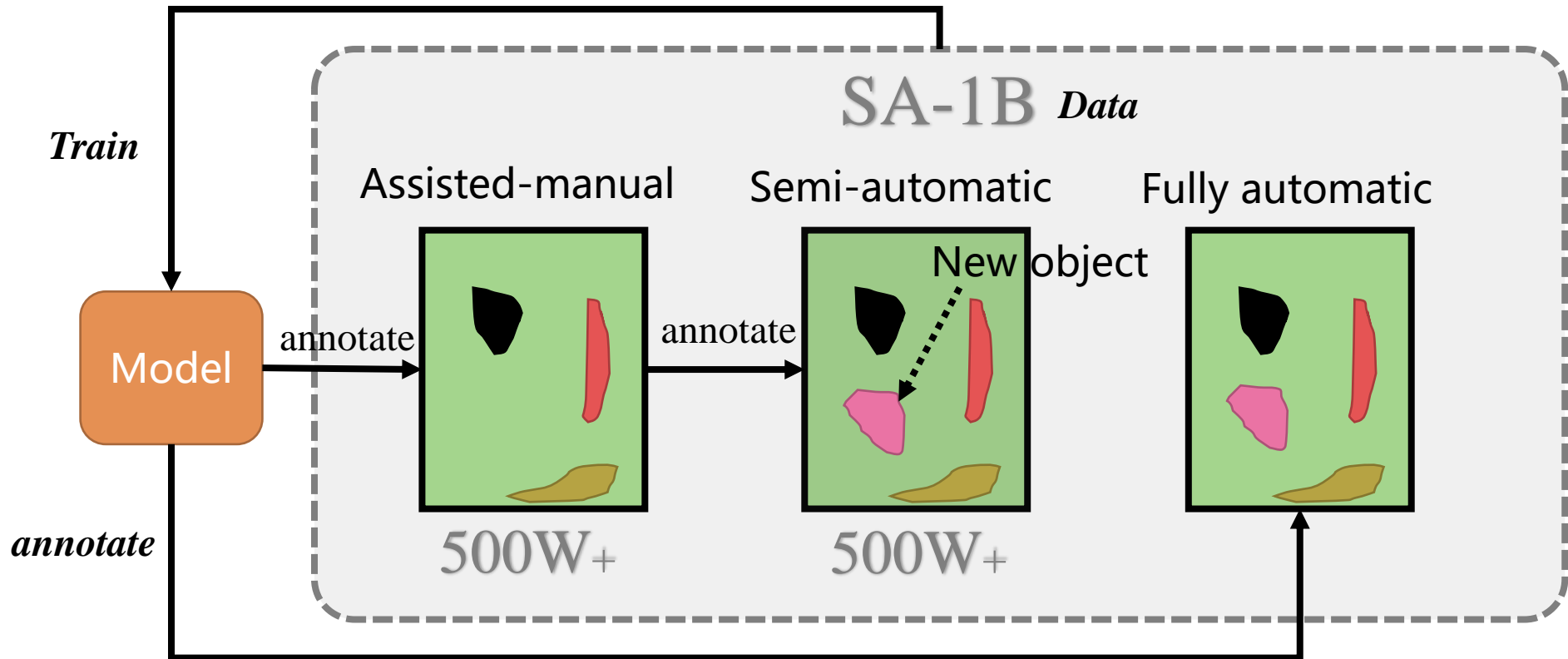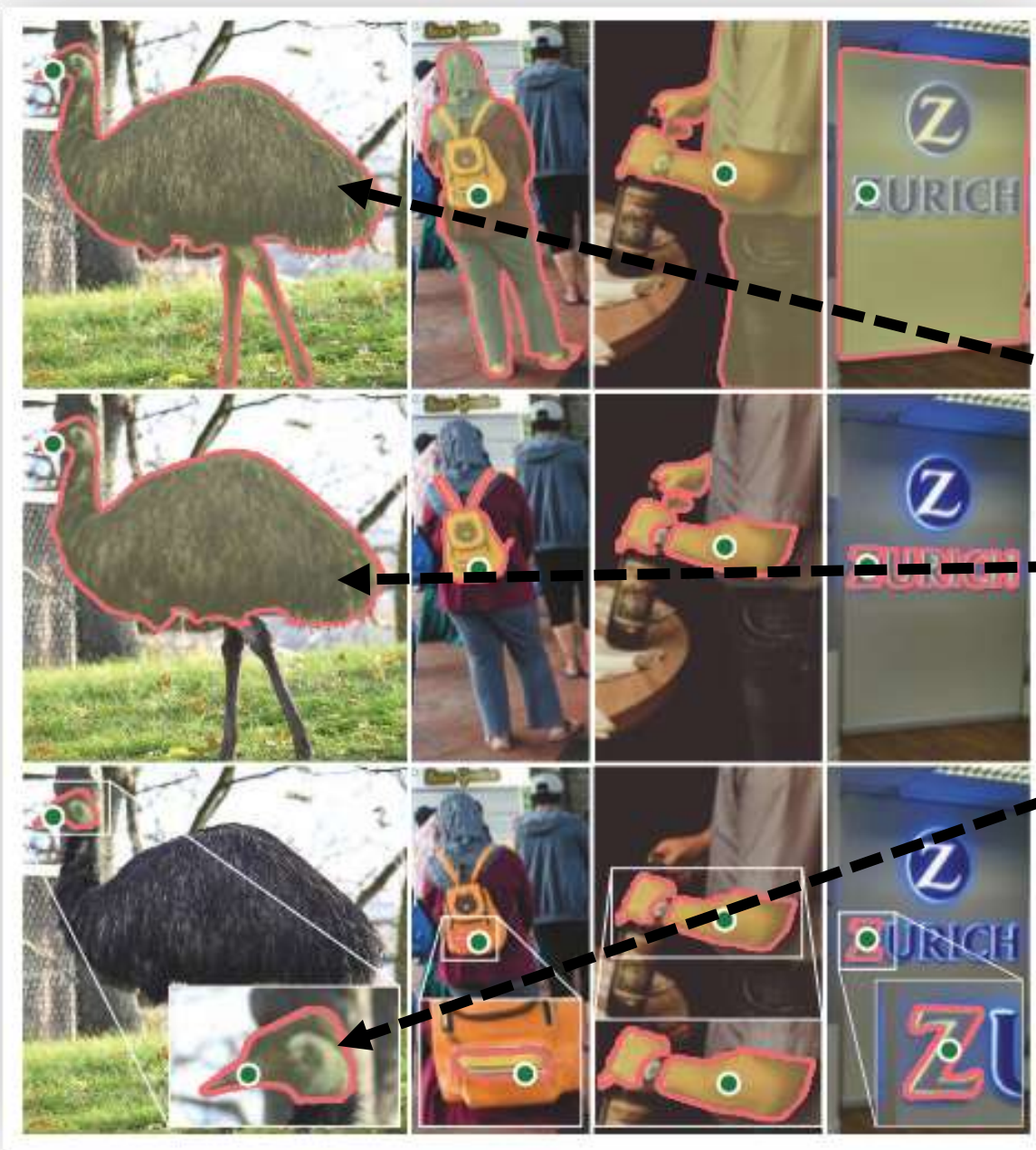
➢ 里程碑意义的体现

➢ 特点：

    ➢ 数据引擎，数据集庞大SA-1B，1Bmasks+11M images
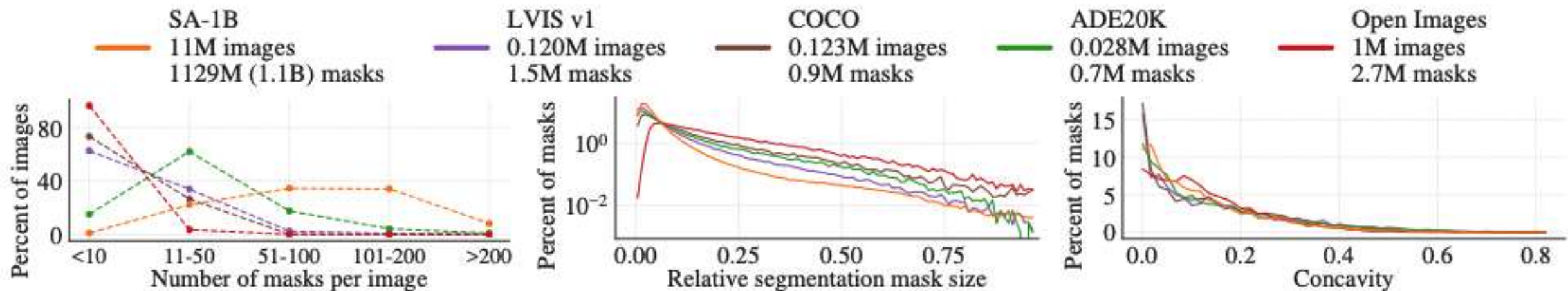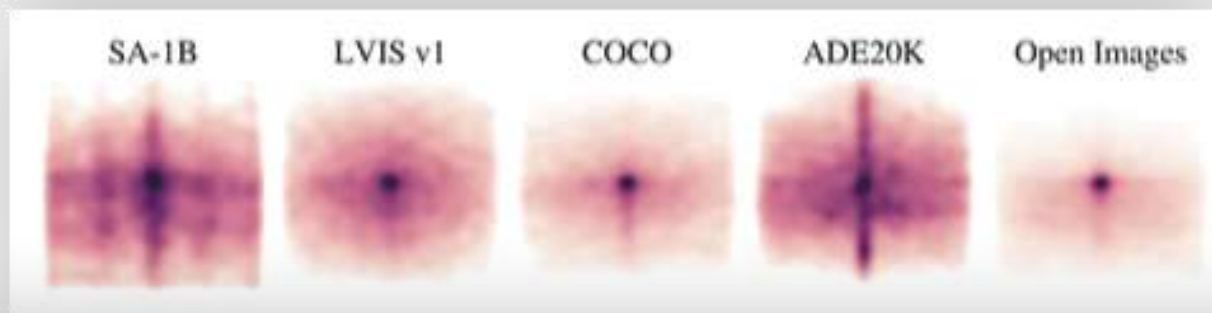
    • 简单构建，本地运行，实时运行cpu-50ms

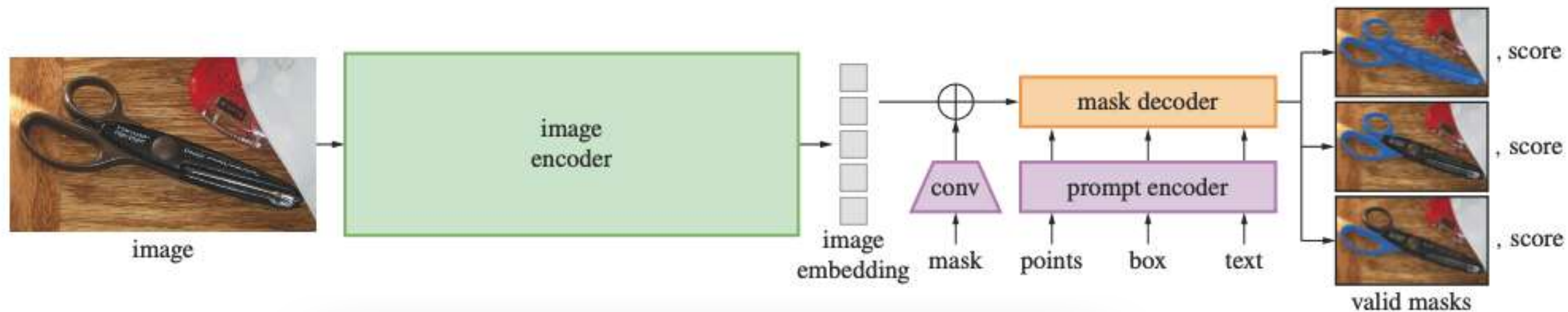   • 视觉提示交互进行

Data Engine：【数据生成数据】——目前未开源

➢ Assist-manual
➢ Semi-automatic【LabelStudio样式】
➢ Fully-automatic

输出三部分：
Whole
Subpart
Part

SA-1B
11M images
1129M (1.1B) masks

LVIS v1
0.120M images
1.5M masks

COCO
0.123M images
0.9M masks

ADE20K
0.028M images
0.7M masks

Open Images
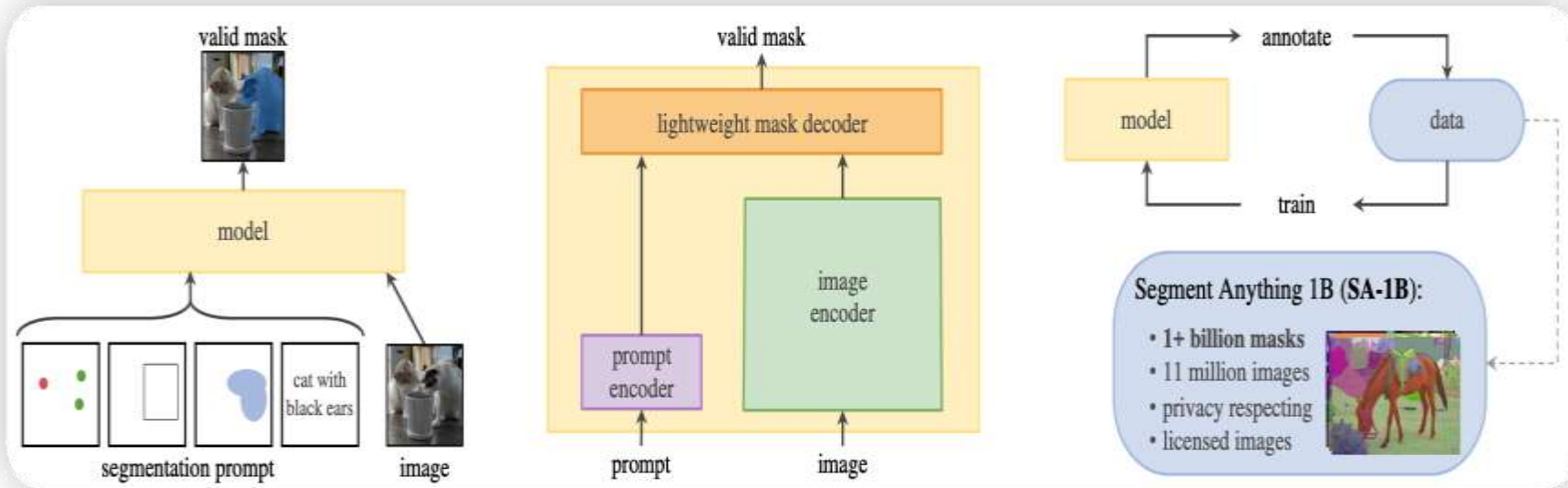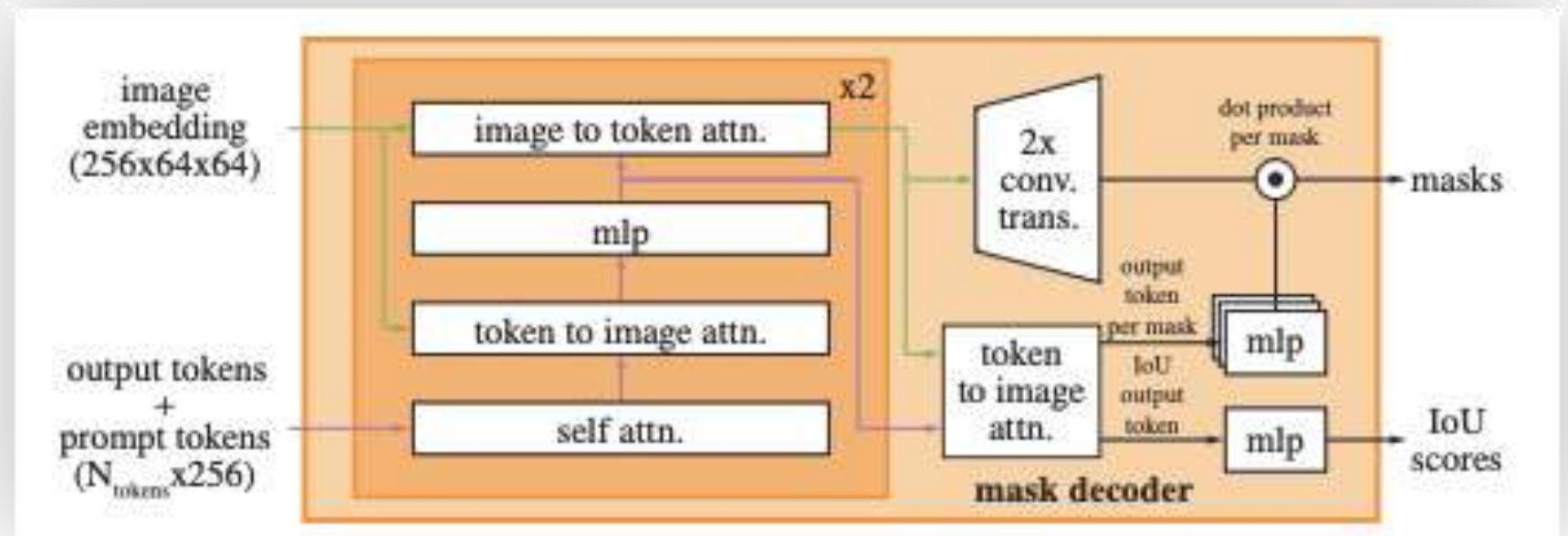1M images
2.7M masks

Image Encoder： ViT-H
Prompt Encoder： CLIP

MASK decoder
（MaskFormer-like）

- Prompt tokens
- Token-to-image
& Image-to-token attention

Thanks