



# webinos

Secure Web Operating System and Application Delivery Environment

# Outline...

1. Introduction to webinos
  - What, who and why
2. What webinos will deliver
3. Open source impact
4. How to get involved
5. Current research activities
  - Security and Privacy
6. Summary



# What is webinos?

- An EU Framework 7 Project
- A **cross-device** runtime environment for **web applications**
  - Mobile, automotive, home media, PC.
  - **Open source** results
  - Standard APIs for device capabilities
  - Javascript “bridge” to other devices / sensors
- Designed to create a **seamless application experience** with low developer effort.



# Who are the webinos consortium?

- Today

- 22 founding partners from 9 countries who committed resources for 3 years to deliver webinos
- Academic & industrial
- Cross-domain

- Tomorrow

- Open (source) community of academia, industry and developers driving and using the results



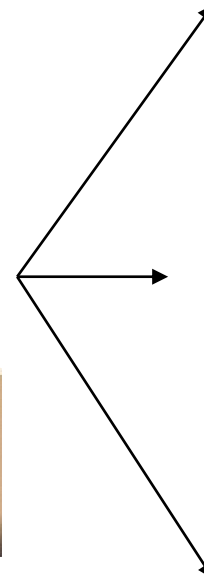
# Why webinos?

- webinos is an industry driven, research and development technology project with clear deliverables.
- It is focussed on the development of future internet.
  - Security, privacy and open source principles
- Avoiding the fragmentation of web application environments...

# To date, developers & consumers face a fragmented Applications / Widget environment

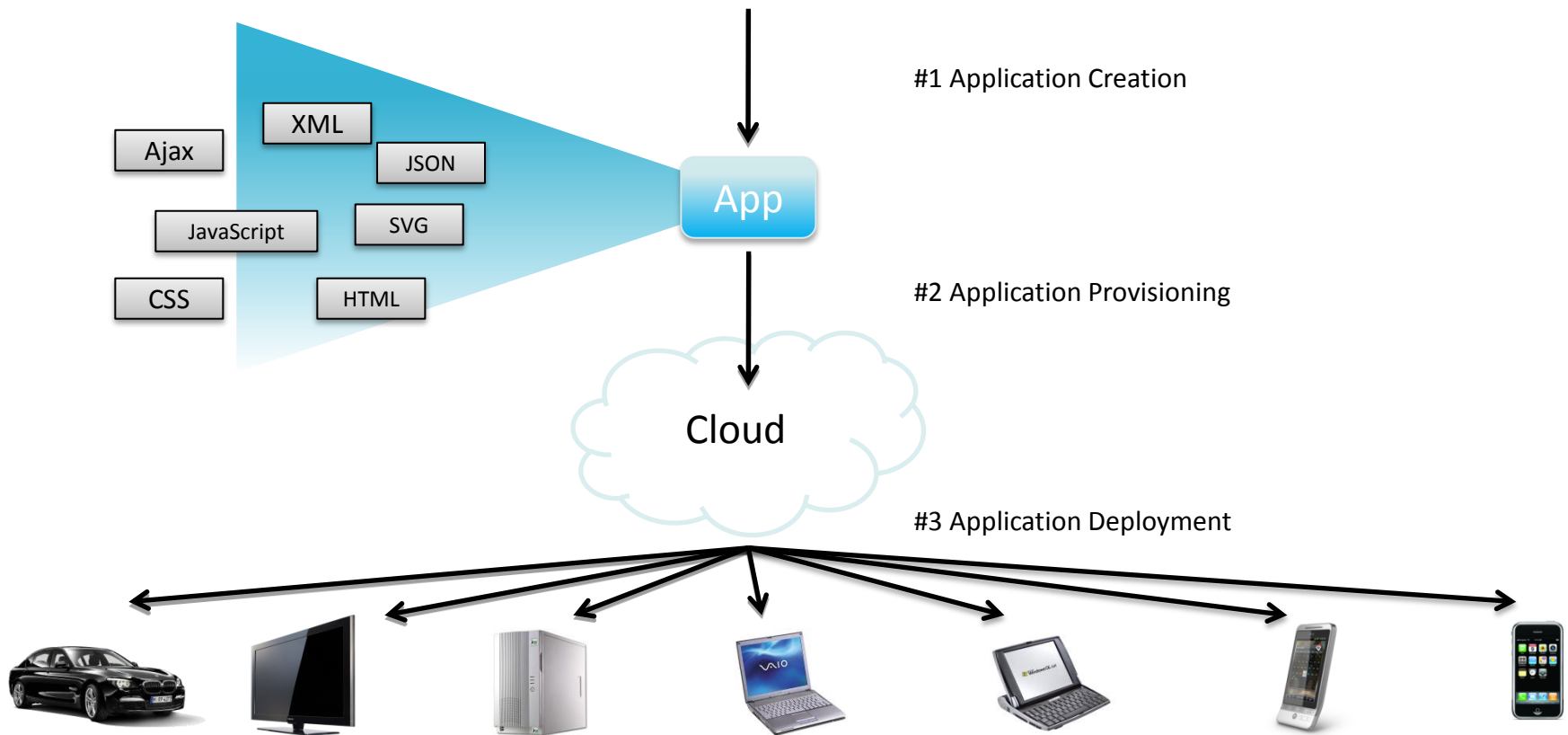


# Fragmentation increases...



# The webinos approach: application convergence across platforms

One open platform for applications suitable for all domains



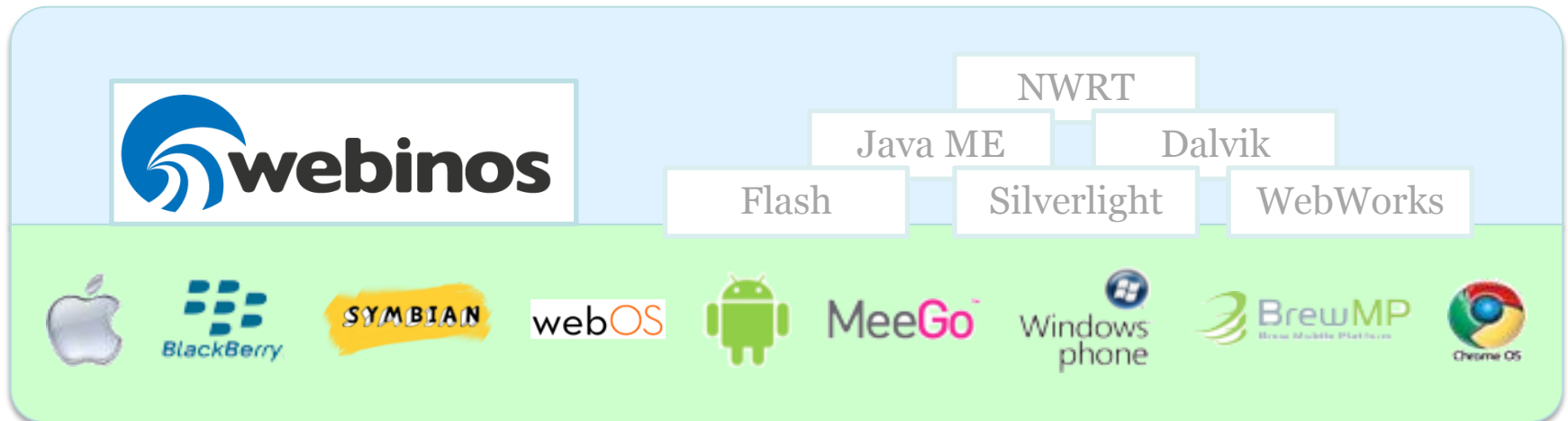


# What will webinos deliver?

- A web platform designed to allow apps to run across mobile, home media, PC and automotive comprising
  - Terminal specifications
  - An **open source platform**
  - Proof of concept applications and demos
- Plus eco-system building in form of
  - workshops and seminars,
  - research publications and
  - liaisons with industry standards

# Interaction with existing platforms

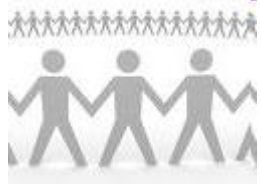
- Webinos is about Web-based development and execution
- It will not replace but sit on top of low-level operating systems
- Webinos is designed to be commercially and technically agnostic of underlying OS
- The reference implementation shall be provided on at least two (and probably more) operating systems



# Example Apps

- The Holiday Planner
- Multiple Device Gaming
- User Centric Video Playback





Peter & Friends  
share same  
social media  
app



Peter is keen to go to a concert  
in the evening & invites the friends



Emma receives it on her mobile & calendar en



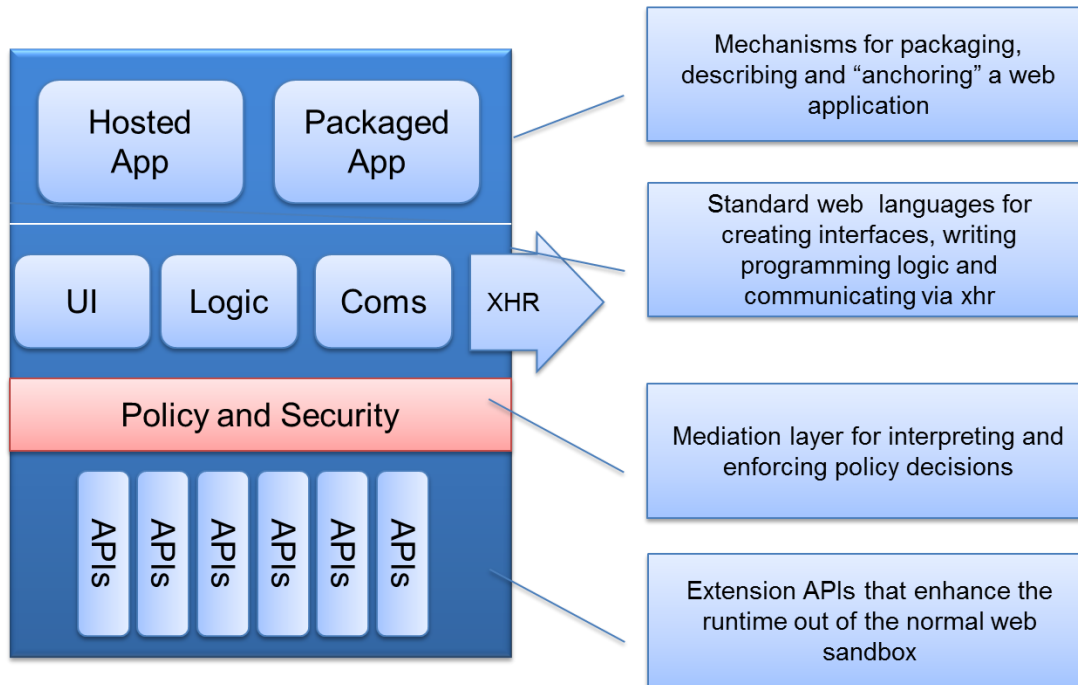
Tom receives it in his car & navigation



Tina & Mick get a prompt on their TV

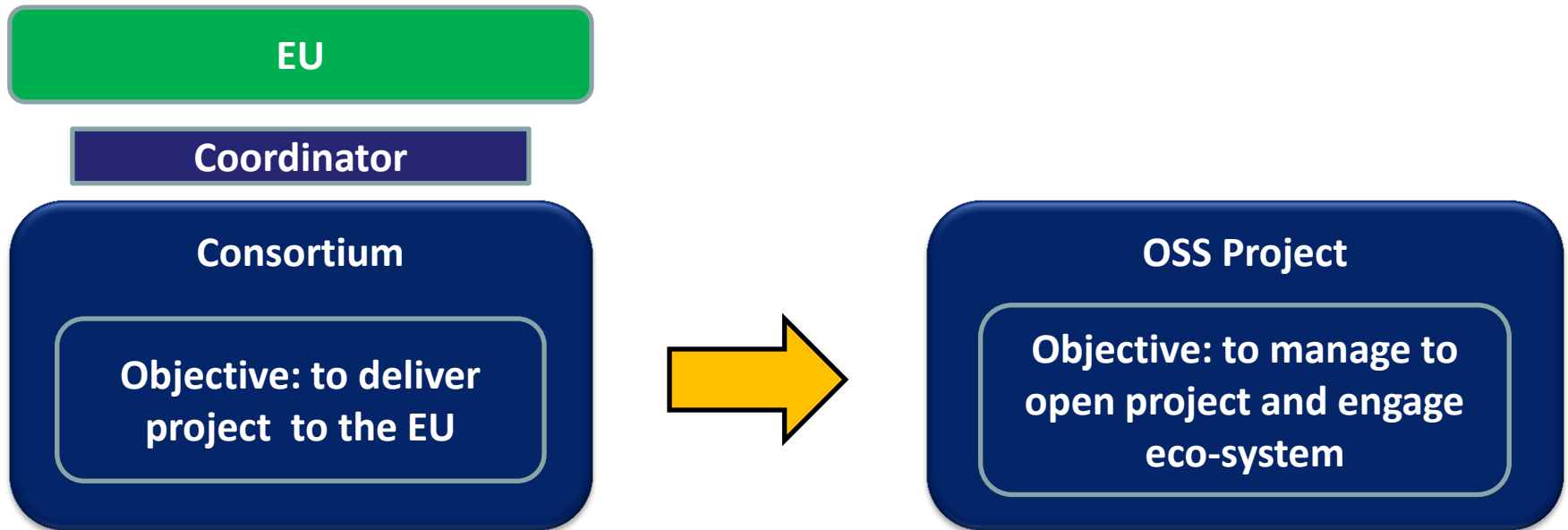
# What will webinos look like?

## ... ask again in a few months time!



# Open Source

Committed to producing **open source code and results**



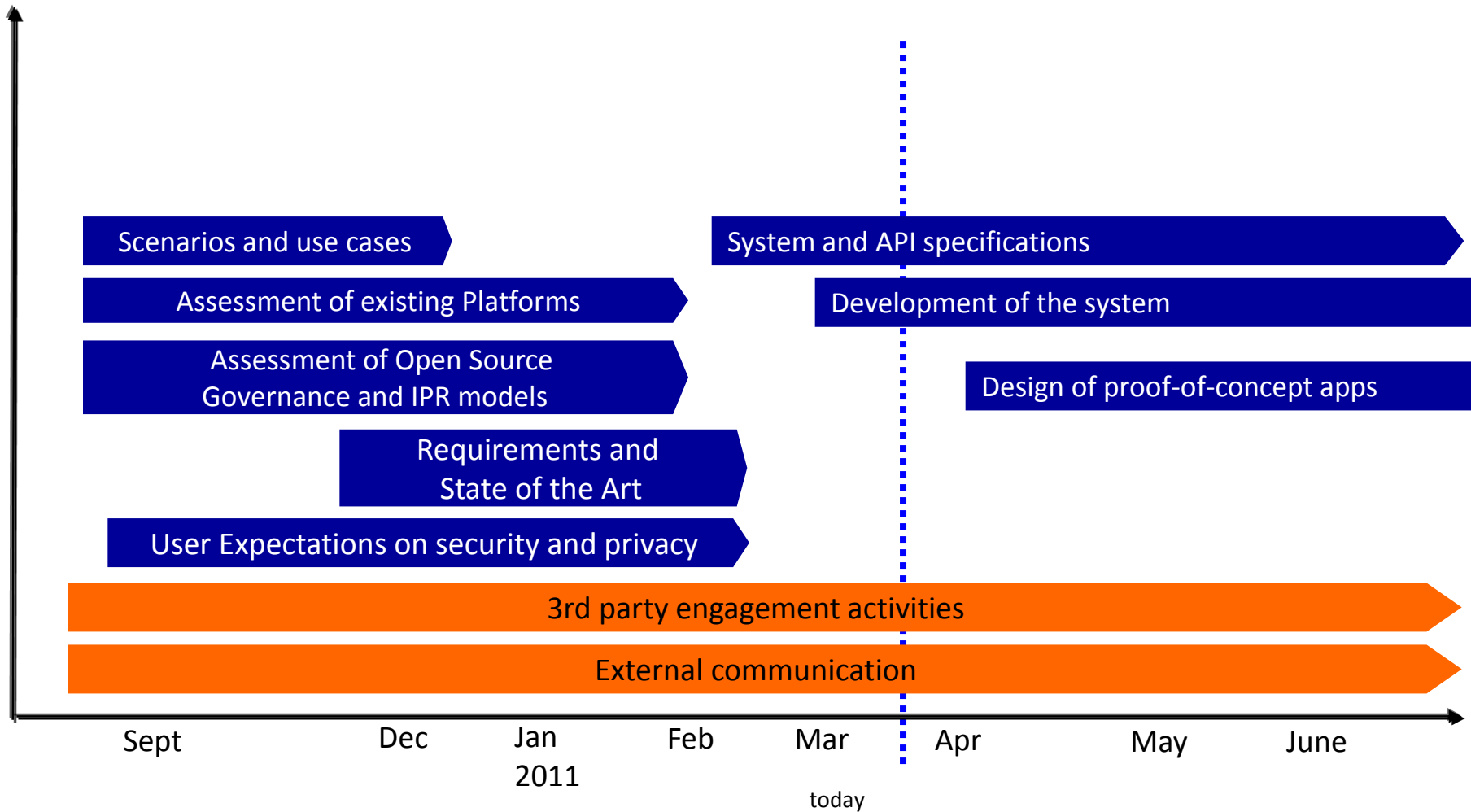
*Twin structure for contractual reasons*

# Get involved!

- The 22 founding members have legally committed responsibilities, finances and resources for 3 years
- **There is a strong intention to enable further parties to engage in webinos across the different work**
- The legal entity for the Open Source Project is still to be established
- To enable participation in the interim,
  - deliverables will be shared on the website for information and comments as applicable
  - dedicated discussion forums are enabled
  - webinars and expert discussion circles will be arranged
- If interested, please
  - talk to webinos members
  - see the website for latest information & events like this
  - send an email to [hello@webinos.org](mailto:hello@webinos.org) to be kept up to date

# Roadmap

3 year project started in September 2010. **Ambitious roadmap.**



█ direct project activities  
█ supportive project activities



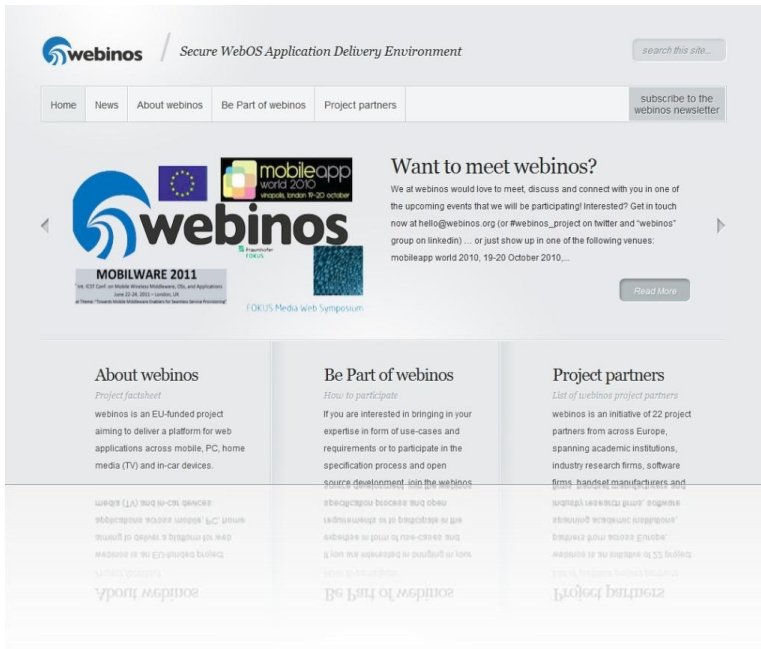
# Usable Security and Privacy

- Critical to the success of webinos
- The University of Oxford's main interest
  - Evaluating secure software engineering techniques
  - Using *hardware-backed* security features
- Protect:
  - Personal privacy, work/life separation
  - Corporate data
  - Devices and networks
- Challenge: we can make very few assumptions about the user, hardware or apps.

# Follow us



**Report on multiple-screens:  
mobile, PC/tablet, automotive, home media**



**Website:** <http://webinos.org/>

**Public Discussion Forum:**  
<http://webinos.org/forum/>

**Contact:** [hello@webinos.org](mailto:hello@webinos.org)

**Newsletter:**  
<http://webinos.org/webinos-newsletter>

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**Next Venue:** Mobilware 2011, London



# Summary

- The webinos project will create an open source web app runtime environment for **cross-device** apps
  - Aim: Avoid fragmentation of the future internet
  - Set of standards and implementation
  - Run by a large consortium of industry and academia
- Currently specifying and designing the system
- Security and Privacy a major concern
- Lots of opportunities to get involved:
  - [hello@webinos.org](mailto:hello@webinos.org)
  - Many deliverables out this year