AGL Proposal

IVI-Product Ready Profile （IVI-PR）

17.Jul.2020
TOYOYA MOTOR CORPORATION

The current profile can not be applied to the product

issue	Ideal state
OEM/Tier1 want to merge code (Base System) into AGL. Dropping code into IVI Profile requires extensive refactoring.	OEM/Tier1 want to drop code with low effort. The dropped code will be merged into AGL UCB and used by the community member.
AGL code does not have features that meet the requirements of the product.	OEM/Tier1 want to be able to easily contribute product code and use AGL code in their products.
The number of activity lead by OEM/Tier1 is small.	OEM/Tier1 lead the architecture discussion. They will present software with an introduction to their products in mind.
Code developed with AGL does not improve quality.	OEM/Tier1 have an environment where they can discuss software quality. AGL provides an environment for testing dropped code.

★ To solve the issues, we plan to make **other new profile**.

Proposed new profile: IVI-Product Ready Profile

■Goal
Making AGL code available in products

■Position
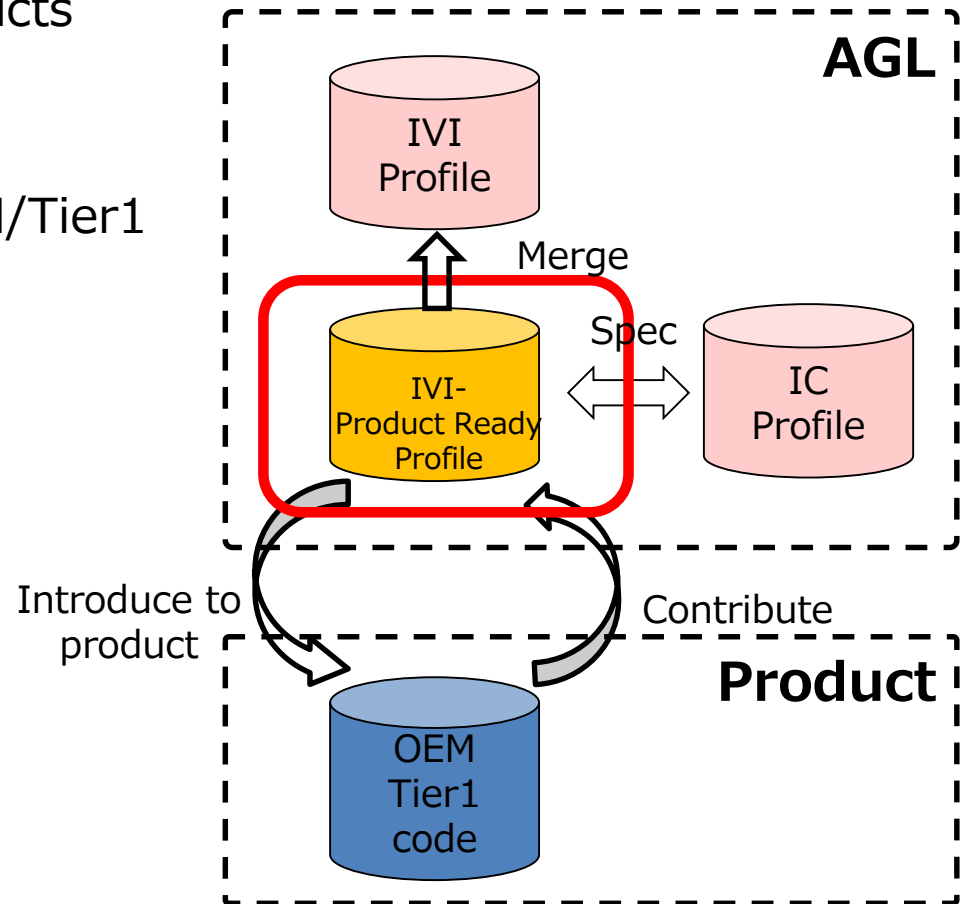This profile makes it easier for OEM/Tier1
to contribute code and for AGL to
merge their code.

■Action item
①Contribute product code
②Develop Profile
③Improve software quality
④Cooperate with other EG
⑤Merge to IVI-profile

■Member
Anyone can join!

3

Proposed activity items for AGL

1. The source codes for IVI-PR drop on UCB staging Area.

2. We create a new layer in the AGL repository.
    (e.g. meta-agl-profile-ivi-pr/meta-agl-ivi-pr-demo)

3. We perform evaluations to improve the quality of software. We need to develop apps and service for evaluations.
    (We also develop demo software for appeal.)

4. We will discuss the component at "SAT-Special Meeting" and we can move components from staging to the main source tree.

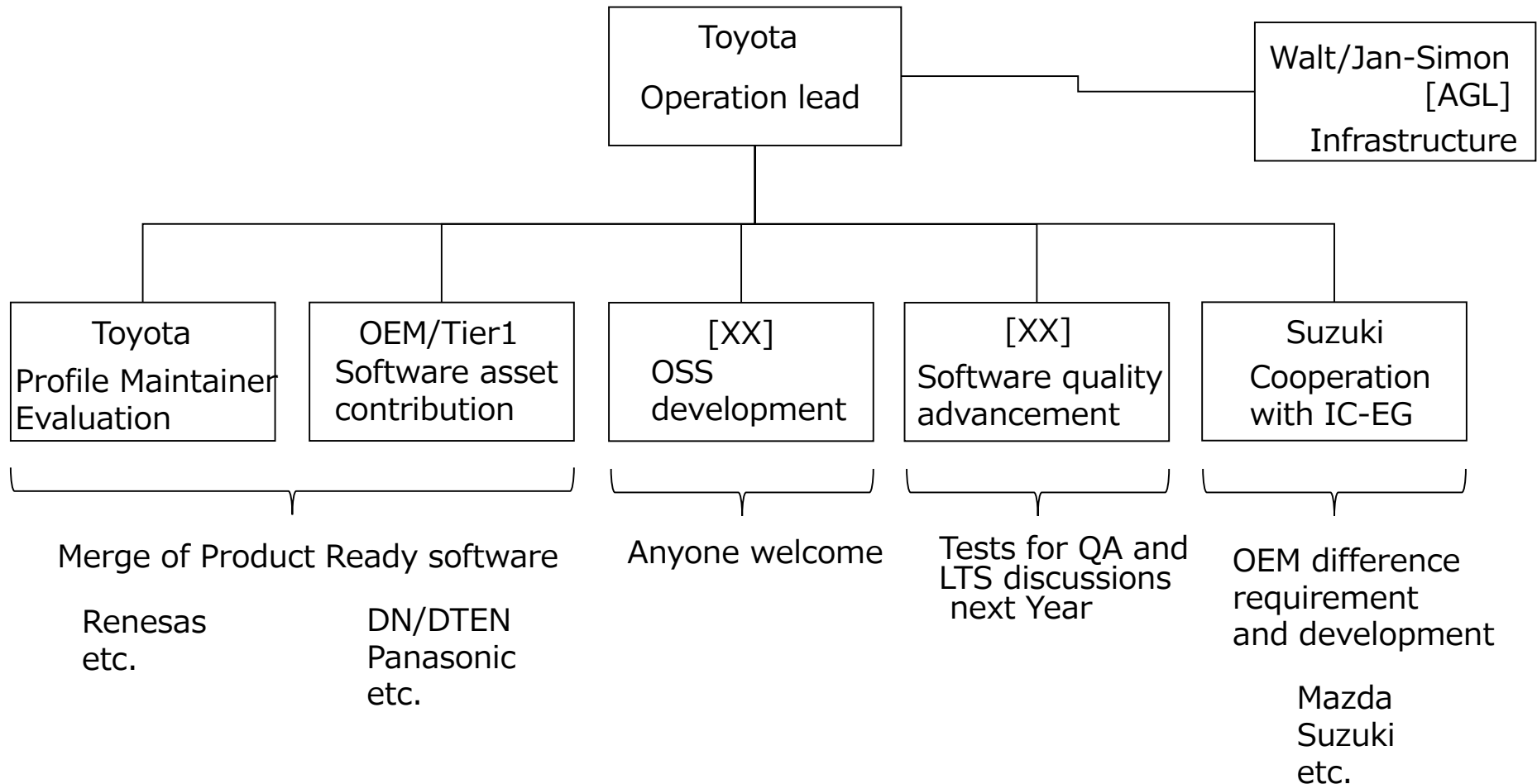5. We will start activities from July as a trial period.

Early Development Members (Trial period)

Toyota will lead the trial activity.
Let's do it together.
Anyone can drop codes or provide requirements.

```
                    ┌─────────────────┐              ┌──────────────────┐
                    │ Toyota          │              │ Walt/Jan-Simon   │
                    │                 │──────────────│ [AGL]            │
                    │ Operation lead  │              │ Infrastructure   │
                    └─────────────────┘              └──────────────────┘
```

| Toyota
Profile Maintainer
Evaluation | OEM/Tier1
Software asset
contribution | [XX]
OSS
development | [XX]
Software quality
advancement | Suzuki
Cooperation
with IC-EG |

Merge of Product Ready software

Renesas etc.

DN/DTEN
Panasonic
etc.

Anyone welcome

Tests for QA and LTS discussions next Year
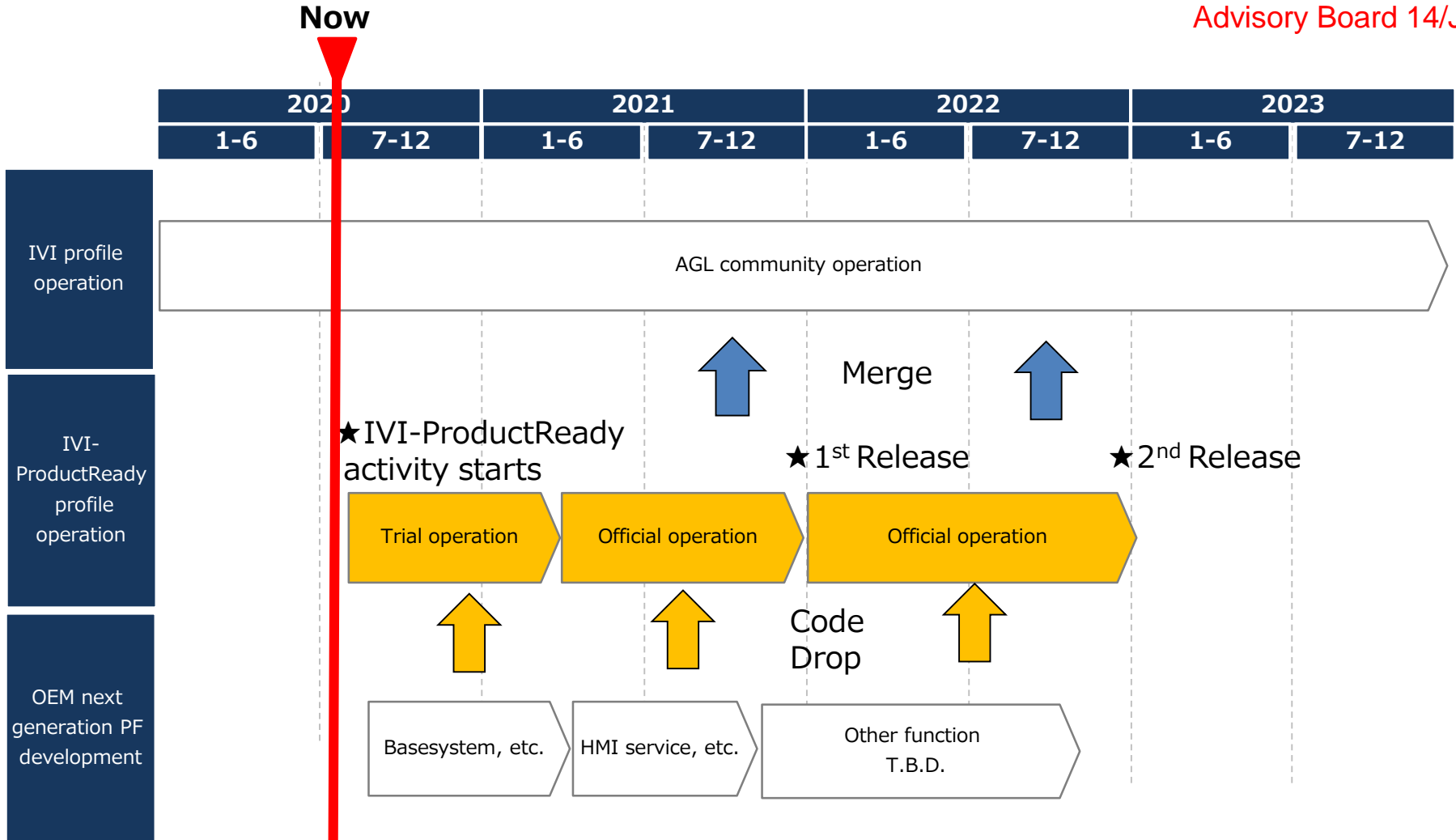
OEM difference requirement and development

Mazda
Suzuki
etc.

5

Software Architecture (plan)

	IVI	IVI-ProductReady Trial (in March 2021)	IVI-ProductReady 1stRelease (in December 2021)
HMI-Apps	Apps For demo	+Test Apps for IVI-PR [Toyota]	+[Tier1,OEM]
HMI	Qt/Chromium	Qt/Chromium	+T.B.D
AppsFW	AGL-Binder	AGL-Binder	+New Binder[Tier1,OEM]
HMI-Service	WindowManager AudioManager	+RBA[DN]	+HMI service[Tier1、OEM]
Other-Service	[AGL]	[AGL]	+BT、Radio[AGL]
Base-System	Not be merged	+BaseSystem[Toyota]	+Diag,Loging,Security +Mulfunction Detector +HAL[Tier1,OEM]
Middleware Linux Kernel	[Yocto & AGL]	[Yocto & AGL]	[Yocto & AGL]
Evaluation	For demo	Profile Maintenance & Evaluation[Toyota] BSP,HW[Renesas]	+including the part of quality test[Tier1,OEM]

Milestone

Now

	2020		2021		2022		2023	
	1-6	7-12	1-6	7-12	1-6	7-12	1-6	7-12

IVI profile operation

AGL community operation

IVI-ProductReady profile operation

★IVI-ProductReady activity starts

Merge

★1st Release ★2nd Release

Trial operation   Official operation   Official operation

Code Drop

OEM next generation PF development

Basesystem, etc.   HMI service, etc.   Other function T.B.D.
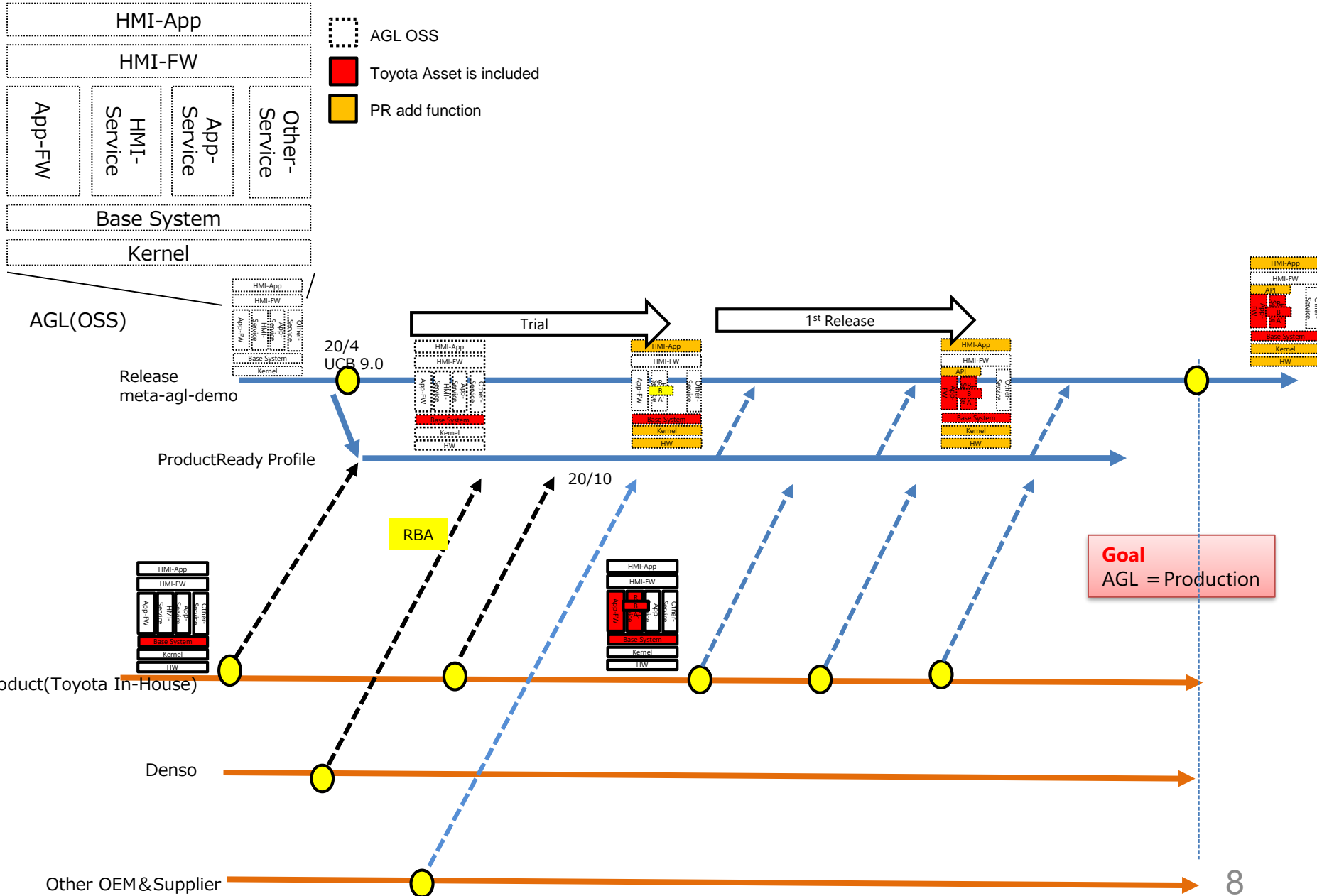
Important notes
- **We don't need two profiles.**
Eventually IVI-PR will be merged to IVI.
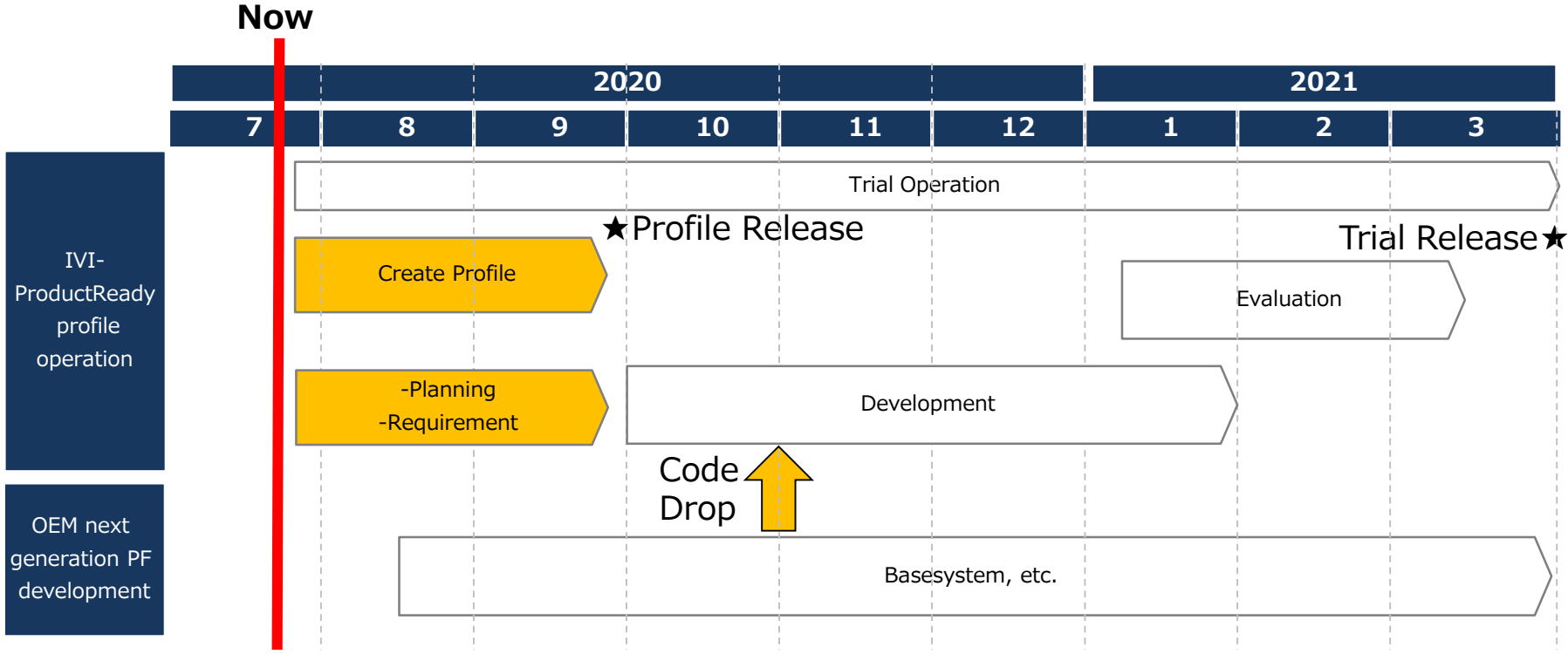- **This activity isn't for Toyota but for everyone.**

: We will merge in as often as possible

7

Toyota Software Migration Path (for AGL)

HMI-App
HMI-FW
App-FW | HMI-Service | App-Service | Other-Service
Base System
Kernel

AGL OSS
Toyota Asset is included
PR add function

AGL(OSS)

Trial
1st Release

20/4
UCB 9.0

Release
meta-agl-demo

ProductReady Profile

20/10

RBA

Goal
AGL = Production

Product(Toyota In-House)

Denso

Other OEM＆Supplier

8

Milestone(Trial Period)

Now

	2020						2021		
7	8	9	10	11	12	1	2	3

IVI-ProductReady profile operation

Trial Operation

★Profile Release

Trial Release★

Create Profile

Evaluation

-Planning
-Requirement

Development

Code Drop

OEM next generation PF development

Basesystem, etc.

SAT Activity for Product Ready Profile(plan)

Toyota requests to have SAT-Special Meeting for PR at day time in Japan.
Our suggestion is Bi-weekly Thursday 9:30(JST). 1st meeting is 6th/Aug.(Different week of SAT)
 If members agree with this, please set this meeting[request to Walt].
Meeting Agenda proposal is below.

No.	Day	Agenda
#1	6/Aug.	Expectation -Toyota will share the function list proposal for trial software. -Denso will share the RBA development Schedule. -Renesas will share the BSP development Schedule. -Panasonic will share Profile Configuration proposal. -Mazda,Suzuki and other members will provide Requirement for AGL IVI.
#2	20/Aug.	-Denso shares RBA Software Architecture and how to adapt AGL software. -Toyota provides updated function list reflected as request from Mazda, Suzuki and others. -update #1 meeting discussion.
#3	3/Sep.	-Members review Profile Configuration and request Jan-Simon to prepare PR profile. -Member function list for Trial software as final. -Toyota prepare high level Software Architecture and member review.
#4	17/Sep.	-Member discuss Software Architecture (more detail than #3).
#5	1/oct.	-Member review Schedule, Software Architecture, function list and RR(Role and Responsibility) for trial period as final.