



Automotive Grade Linux Roadmap for 2019 and Beyond

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Before we start...

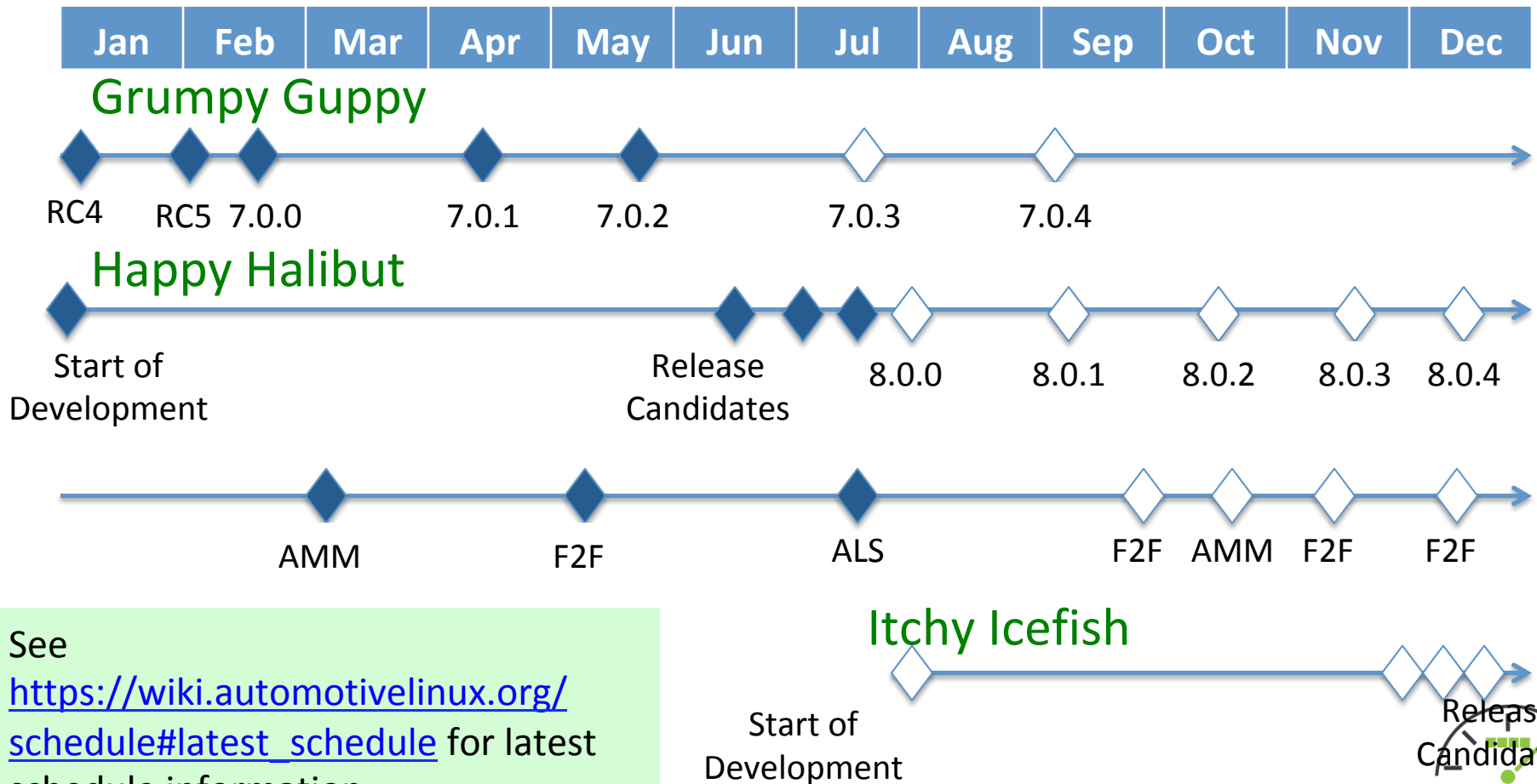
- Automotive Grade Linux is an open source project which means:
 - Code, code, code
 - Test, Test, Test
 - Commit Early, Commit Often
 - Everything we do is in the open and transparent

Thanks for all the fish...

Agile Albacore – Jan 2016
Brilliant Blowfish – July 2016
Charming Chinook – Dec 2016
Daring Dab – July 2017
Electric Eel – Jan 2018
Funky Flounder – Ocr 2018
Grumpy Guppy – Jan 2019
Happy Halibut – July 2019
Itchy Icefish – Jan 2020



2019 AGL Schedule (Current)



See https://wiki.automotivelinux.org/schedule#latest_schedule for latest schedule information

Vision for 2019 & Beyond

- AGL production readiness
 - Speech Architecture
 - Web App Manager
 - Audio – PipeWire vs. 4a –
 - CAN and Vehicle signaling – CAN output + J1939
 - API Gap Analysis – [Confluence Page](#)

Vision for 2019 & Beyond

- AGL production readiness
 - Long-Term Support for AGL – [Confluence Page](#)
 - Getting agreement on what AGL will provide as part of LTS
 - Alignment with upstream (e.g., Yocto, board vendors, etc)

Vision for 2019 & Beyond

- Instrument Cluster evolution
 - IC EG Started. Requirements definition and architecture work ongoing
 - Konsulko continuing to evolve current IC profile and reference device
 - Hardware reference?
- Telematics, ADAS, and HUD reference devices
 - Telematics Reference Device released with HH
 - Requirements evolving. Need more Tier One support.
 - Hardware reference?
- Next generation SOCs (RCAR gen 4, i.MX8)

Vision for 2019 & Beyond

- Window Manager and Home Screen Services
 - Weston 6.0 + Waltham
 - Consolidated Window Manager and Compositor
 - Reference Home Screen
- Video architecture for IVI, ADAS and Autonomous
 - Will start to be addressed by Collabora work in 2H 2019.
- Sensor fusion architecture
- Smartphone connectivity – Plug in solution for Apple CarPlay and Android Auto

HAPPY HALIBUT

Happy Halibut

- Upgrade to Yocto 2.6 – Thud branch
- Telematics Reference Device
 - Telematics Profile and demo available
- AGL Application Framework
 - Multi-user security rules.
 - AGL no longer runs applications and service binders as root user.
 - Process kill now available from afm-util
 - Task Manager app now available as an installable widget

Happy Halibut

- Weston 6.0 now available
- Waltham transmitter and receiver refactored
 - Fully available in IVI and Instrument Cluster profiles
- Web App Manager
 - Latest Chromium 68 patches included
 - Qt dependencies removed

Happy Halibut Features

- Audio
 - Pipewire is default audio build option
 - Pipewire mixer replaces 4a soft mixer
 - Initial sessionmanager and wireplumber created
- CAN
 - J1939 support added
 - Writing to CAN bus fully supported and secured

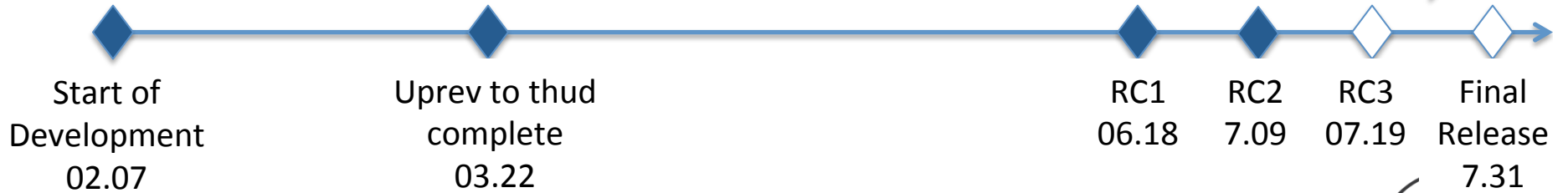
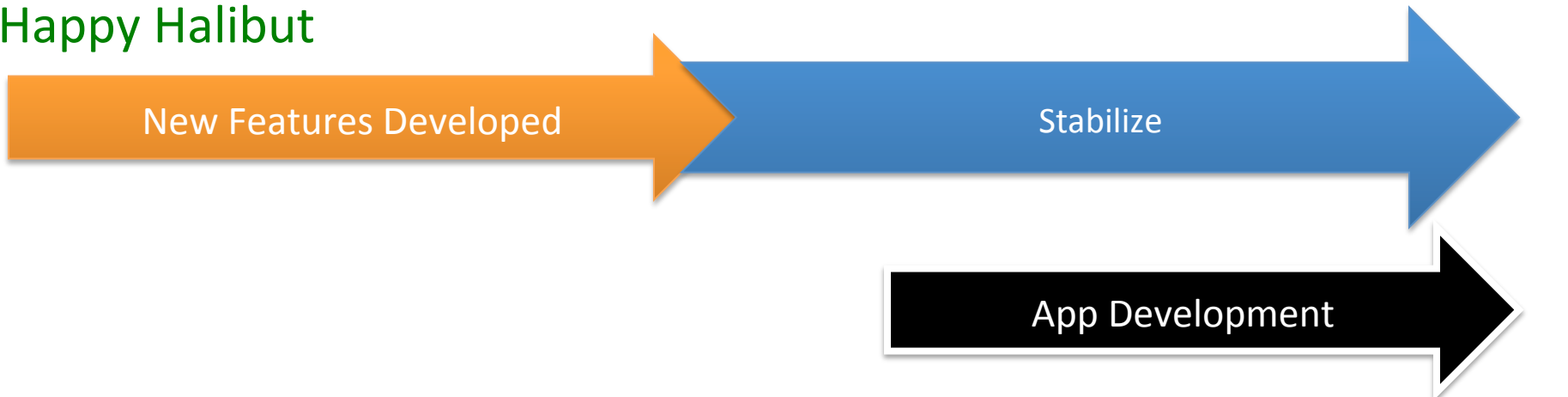
Happy Halibut Features

- Test Cases added for numerous AGL Service Binder
 - afb, bluetooth, bluetooth-map, bluetooth-pbap, gps, mediaplayer, nfc, and weather.
- Board Support Packages
 - Renesas RCar3 BSPs updated to v3.19
 - i.MX6 reenabled using etnaviv open source graphics
 - New Support for SanCloud BeagleBone Enhanced

Happy Halibut



Happy Halibut



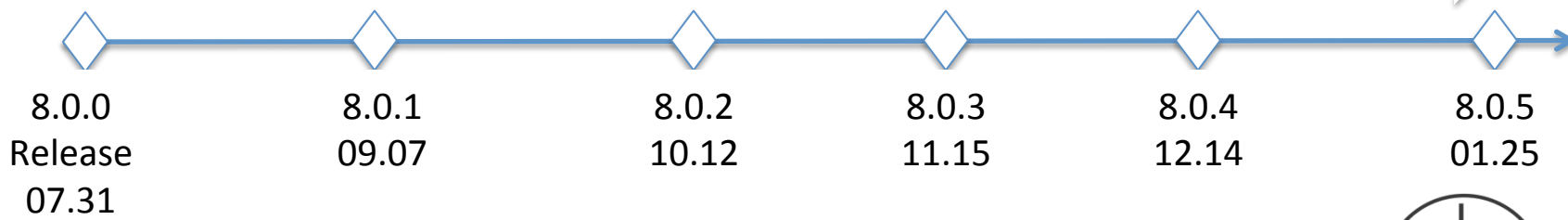
As of 12 July 2019



Happy Halibut Patch Releases



Happy Halibut



ITCHY ICEFISH

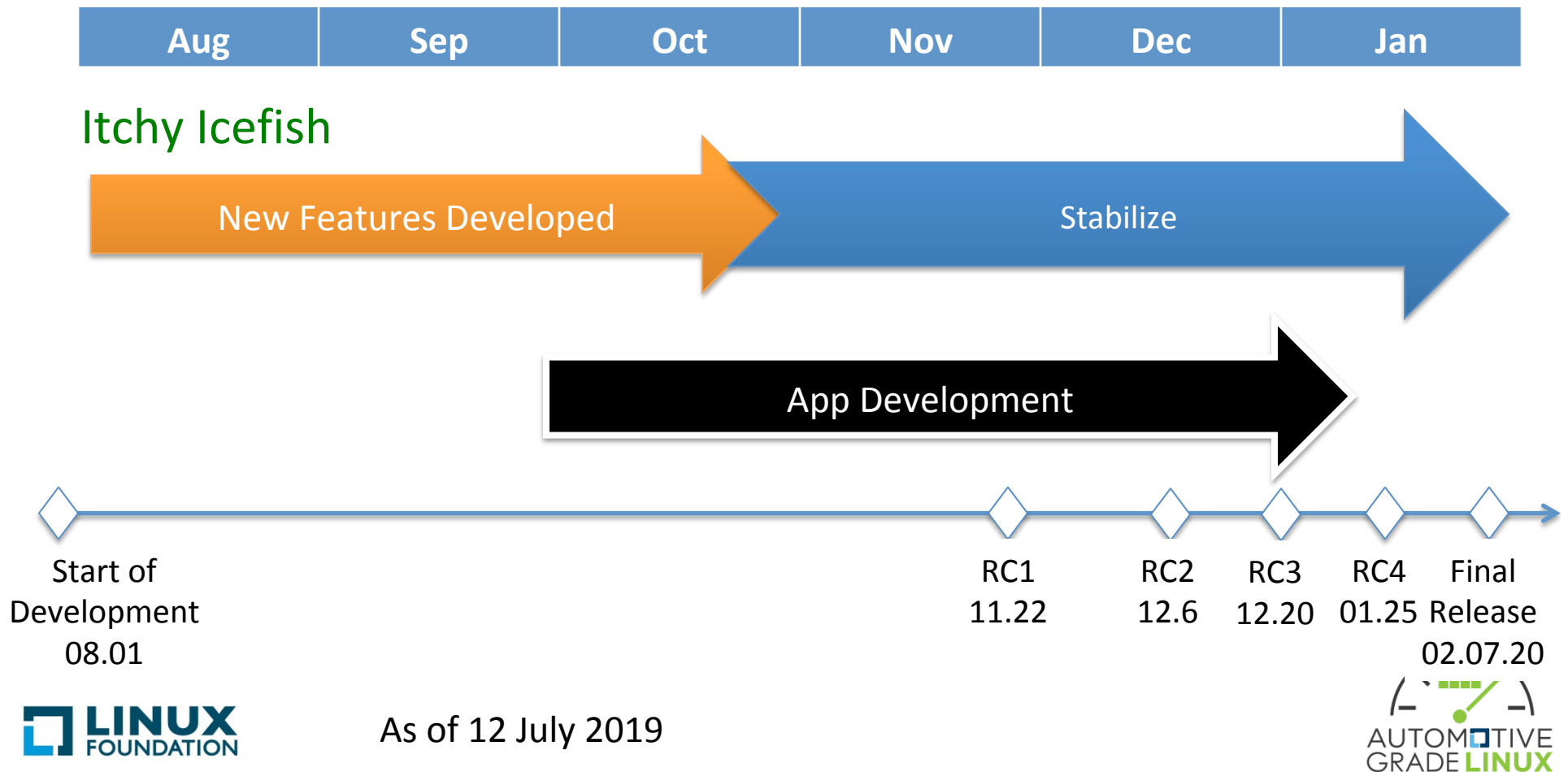
Itchy Icefish

- Continue with Yocto 2.6 – Thud branch
- Finish Window Manager and Compositor Consolidation - [Confluence page](#) with latest architecture and design.
- Replace IVI Shell with new Window Manager
- Home Screen Reference Implementation

Itchy Icefish

- Input manager
 - Touch screen, LIN, ADC, and mouse event management
- PipeWire and Session Manager Updates

Itchy Icefish



Call To Action

- YOU can move these projects forward
 - There are Projects that will get done this year because someone or some group is passionate about it.
- Join the automotive-discussions mail list
- Download the code
- Submit changes
- Have Fun!



Q & A

Q & A

- This is the segment where
 - You ask intelligent, well thought out questions
 - I ramble pointlessly and unintelligently
- And/Or
 - You ask “dumb” questions
 - I respond with concise, insightful, and well-reasoned answers



THANK YOU

